

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1817.—VOL. XL.

London, Saturday, June 18, 1870.

(WITH SUPPLEMENT) { STAMPED ... SIXPENCE.
UNSTAMPED...FIVEPENCE.

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
NO. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

HOLDERS OF mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

Further rise has taken place in tin, making the price of black tin from £25 to £30 per ton. Mr. CROFTS recommends for immediate purchase GREAT ROYALTON AND ROCHE CONSOLS (Tin) shares. At the latter mine large quantities of rich tinstinst are being laid open, and a valuable mine developed.

Every description of shares BOUGHT AND SOLD at NET prices.

Bankers: Metropolitan Bank.

MR. W. H. BUMPUS, STOCK AND SHAREDEALER,
44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the

following SHARES, free of commission:—

100 Anglo-Australian, 18s.
15 Asheton, £7 1/2.
50 Australian Uni., £2 1/2.
20 Brynpostig, 20s.
20 Bwlch Consols, £3 1/2.
25 Bronfloyd Cons., £3 1/2.
50 Bwadrafn Con., 29s 6d.
50 Carn Camborne, 26s.
20 Caegwyn, £2.
40 Caldbeck Fells, 25s 9d.
30 Chontales, 33s.
20 Don Pedro, £2 1/2 pm.
15 East Cadron, £2 1/2.
25 East Grenville, £2 1/2.
W. H. B. transacts business in every description of shares at the best market prices, and free of commission.

Bankers: The Metropolitan Bank (Limited), Cornhill, E.C.

MR. WILLIAM WARD,
95, BISHOPSGATE STREET WITHIN, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. Y. CHRISTIAN, STOCK AND SHAREDEALER,
11, ROYAL EXCHANGE, E.C.,
Bankers: Bank of England.

MR. T. A. MUNDY, STOCK AND SHAREDEALER,
38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Bankers: City Bank, Finch-lane, E.C.

MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
Bankers: City Bank, Finch-lane.

MR. THOMAS ROSEWARNE, SHAREDEALER,
81, OLD BROAD STREET, LONDON, E.C.
T. R. has BUSINESS in all the leading mines, and may be consulted from Ten to Four o'clock.
Money advanced to any extent on good mining shares.

Bankers: Bank of England.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., DEALS in all descriptions of ENGLISH and FOREIGN SECURITIES, either for immediate cash or the fortnightly settlement.

Recommends the purchase of shares in the VAN MINE, undoubtedly the richest lead mine, and the safest investment known.

W. T. has business in Carn Brea shares, and pays particular attention to the Brazilian and Californian Gold Mine shares. From his long residence in the Brasil he is able to afford full information as to the prospects of the gold mines of that country.

Twenty-six Years' Experience.

MR. F. W. MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
EAST LOVELL MINE.—Special report of the present prospects of this mine may be had by applying to Mr. MANSELL.

F. W. M. should be consulted before investing in the numerous Welch mines lately introduced.

WANTED TO PURCHASE—50 Marke Valley, at £7; 20 Herodsfoot, at £40, ex div.; 10 Tincroft, at £35; and 5 Wheal Jane, at £48.

Daily Price List of British and Foreign mines published every evening, and forwarded to correspondents (free).

References exchanged.

Bankers: London Joint-Stock Bank.

MR. J. B. HAWKES, 2, CROWN COURT, THREADNEEDLE STREET, E.C., has FOR SALE the following shares:—

5 Wheal Buller, £9 1/2.
2 Trumpet Cons., £2 1/2.
20 Wheal Agar, £7 1/2.
25 West Maria, £2 1/2 9d.
1 Tincroft, £3 1/2.
50 Prince of Wales, 16s 6d.

MR. H. WADDINGTON, 48, THREADNEEDLE STREET, LONDON.

EAST LOVELL shares have now reached £35, or the same price as Tincroft. In the former mine 10 fms. of tin ground cannot be said to be fairly laid open; in the latter thousands of fathoms of rich tin lies high and dry.

FOR SALE—60 Great South Tolgus; 90 East Carn Brea, at 5s. per share; 50 Virtuous Lady, and 50 of her twin sister, the Queen Silver, given in (offer wanted); 1 Bassett, at £9 1/2; 20 South Condurrow, £2 16s. 3d.; 10 Aberdaunant; 2 Mary Ann, £10 1/2; 1 New Seton, £36.

And is a BUYER of 3 Providence, 5 Wheal Jane, 100 Pen'Allt, 50 Carn Camborne, and 5 Great Laxey shares at market quotations.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER at net prices of:—

100 West Pant-y-Go, 21s. 50 Minera, 50 Plymhill, 30 Prince of Wales, 50 East New Lovell, 25 East Grenville, 70 Great Cadron, 40 Nangies, 25 Wheal Agar, 35 Polbren, 60 Pen'Allt, 20 East Seton, 2 Herodsfoot, 1 Dolcoath, 2 Bwlch Camborne, 1 East Darren, 100 Great South Tolgus, 20 Great Retallack, 10 Great Rock, 100 West Prince of Wales, 55 South Grenville, 3 Van.

Mr. BUDGE advises investors to secure an interest in Bwadrafn Consols. He says to state that he does not know another mine making equal returns, and laying open such reserves, or so favourably situated, the shares of which are selling at anything like the price. Sampling for May 30 tons of lead ore.

TANKERVILLE, WEST TANKERVILLE,
AND OTHER WELSH LEAD MINES.

EAST WHEAL LOVELL, AND OTHER CORNISH MINES.

IMPORTANT TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," &c., of Friday, June 17, No. 587, price 6d, each copy, forwarded on application, contains information on the following mines:—

Tankerville, East Wheal Seton, West Caradon, Great Wheal Vor, Great Wheal Croft, West Great Work, Anglo-Brazilian.

West Tankerville, East Lovell, Don Pedro, Wheal Trelew, Great Western.

East Wheal Seton, West Wheal Seton, North Wheal Croft, Great Wheal Vor, Great Wheal Croft, West Great Work, Anglo-Brazilian.

With remarks on the daily operations, and advice as to purchases or sales.

Annual subscription, £1 1s.; by post, £2 2s.; monthly subscription by post, 4s.; single copy, 1d.; by post, 2d.

Published by P. WATSON, Stock and Sharedealer, 79, Old Broad-street, London, E.C.

MR. EDWARD COOKE,
STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET,
LONDON, E.C.

E.C. having been underground at Tankerville and West Tankerville Mines will feel much pleasure in affording information relative to them, either by post or on personal application.

Bankers: Alliance Bank.

MR. JAMES STOCKER, STOCK AND SHAREDEALER,
31, THREADNEEDLE STREET (and Mining Exchange),
LONDON, E.C.

Bankers: London and Westminster, Lothbury.

MR. W. H. COOKE,
No. 42, CORNHILL, LONDON, E.C.
Daily price-list on application.

MR. HENRY MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, FOR SALE, at net prices, for cash, the FOLLOWING SHARES:—

10 E. Lovell, £3 1/2.
25 Frank Mills, £2 18s 9d.
50 Drake Walls, £1 9s 3d.
10 W. Chiverton, £5 1/2.
5 Cook's Kitchen, £2 1/2.
10 Spear's Moor, £2 1/2.
2 Wheal Bassett, £1 12s 6d.
30 Tankerville, £1 1/2.
5 Tincroft, £3 1/2.
100 Prince of Wales, 15s 9d.
20 Bwlch Consols, £3 13 9d.
2 Devon Consols, £1 07 1/2.
5 Providence, £4 1/2.
10 East Pool, £8 1/2.
10 Wheal Buller, £7 15s.
16 Van, £8 9d.
25 Marke Vale, £7 8s 9d.
50 Pen'Allt, £1 9s 3d.
10 W. Tankerville, £1 13 3s.
10 Wheal Buller, £7 15s.
50 North Treskerby, 9s 3d.
55 North Croft, £6 8s 3d.

Mr. HENRY MANSELL calls the attention of all intending investors to the VAN CONSOLS, EXCELSIOR, TERRAS, and WEST JEWELL shares as safe and bona fide investments. All particulars on application.

Bankers: London Joint-Stock Bank. Reference exchanged.

SILK AND CO., STOCK AND SHARE BROKERS,
CHIEF OFFICES: 32, REGENT STREET, W.

CITY OFFICES: 36, MARKE LANE, E.C.

We are prepared to negotiate the Purchase or Sale of Stocks and Shares in Consols, Foreign Bonds, Railways, Banks, Insurance, Gas, and other Companies. BUSINESS of every description in Mining Shares at net prices for cash or account.

CARDIGAN BAY CONSOLS.—See report in this day's issue.

SOUTH CARDIGAN.—The shaft is still sinking through a fine course of ore, and the property is increasing immensely in value. Parties desirous of inspecting the mines can obtain orders on application at the offices of the company as above.

FRANK LIMMER, Secretary.

MESSRS. J. HUME AND CO., STOCK AND SHAREDEALERS,
74, OLD BROAD STREET, LONDON, E.C.

Business done for cash, account, or time on.

The "Investment Record and Mining Review" on application.

Bankers: The London Joint-Stock Bank.

ENDEAN AND CO., STOCK AND SHARE DEALERS,
BRITISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES,
55, GRACECHURCH STREET, LONDON, E.C.

Telegraphs, Railways, Insurance, Banks, Canals, Hotels, Mines (home and abroad), Steam-ships, &c., together with every other description of Stocks, Bought or Sold for cash or fortnightly settlement.

Our long experience has taught us to deal with caution. We act accordingly.

Investors can make money, and for safety they should do their business only through us.

We advise capitalists and investors to make immediate application for shares in the Terras Tin Company (Limited) and the Aberdaunant Lead Mining Company (Limited). The former, in Cornwall, will rise to as many pounds as now selling for shillings; the latter, in the Van district, will be the next great prize in Montgomeryshire. Letters and telegrams receive prompt attention.

Prospectus of the Terras Tin may be had on application as above.

ENDEAN AND CO., 55, Gracechurch-street, London, E.C.

The following shares are now on hand FOR SALE, for net cash, at the prices affixed:—

30 Aberdaunant, £2 18s 9d.
20 Herodsfoot, £4 12s.
20 Wheal Jane, £4 12s.
20 South Frances, £1 12s.
25 Cashwell, £5.
50 Caegwyn, £2.
100 Holm bush and Kelly Bray (offer wtd.).
25 Lovell Consols.
25 Wheal Agar, £2 18s 9d.
25 Wheal Seton, £1 12s 6d.
100 Harewood Consols.
50 Sweetland Crk, £10s 6d.
50 West Jewell.
25 Cefn Consols.
100 Great Royalton.
50 Hammett (offer wtd.).
100 Llanarmon.
50 Aberdaunant.
50 Terras Tin.

WANTED, the FOLLOWING SHARES for cash:—

20 West Caradon, £2 17s. 6d.
50 W. Chiverton, £5 10s.
15 Herodsfoot, £4 1.

40 Providence, £2 9.

20 Tincroft, £3 4.

25 Great Laxey, £18 15s.

25 Wheal Bassett.

25 Wheal Seton.

25 Wheal Trelew.

25 Wheal Vor.

25 Wheal Trelew.

AWARDED TWENTY GOLD AND SILVER FIRST-CLASS PRIZE MEDALS.

IMMENSE SAVING OF LABOUR.

TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, MCADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,

OR ORE CRUSHING MACHINE,

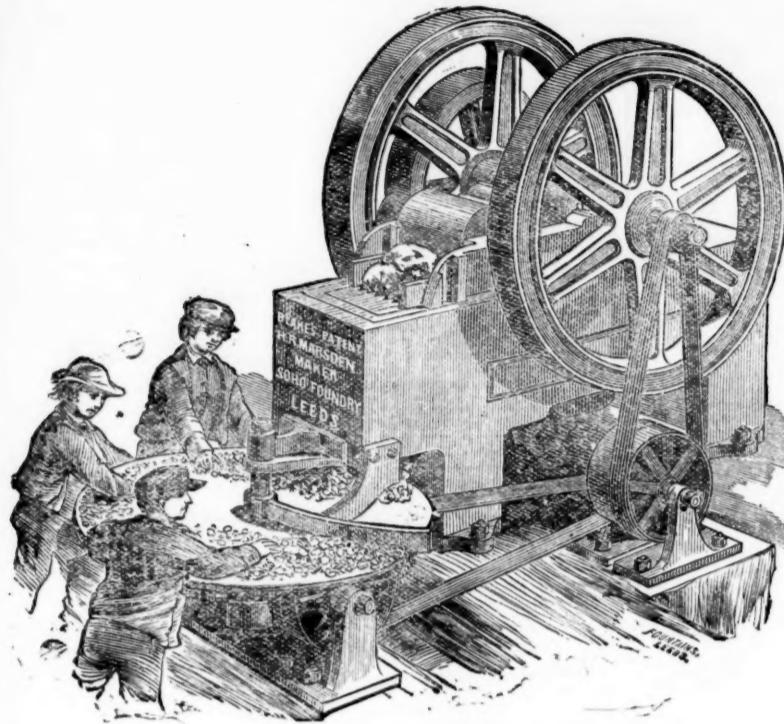
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

This is the only machine that has proved a success. This machine was shown in full operation at the Royal Agricultural Society's Show at Manchester, and at the Highland Agricultural Society's Show at Edinburgh, where it broke 1½ ton of the hardest trap or winstone in eight minutes, and was

AWARDED TWO FIRST-CLASS SILVER MEDALS. It has also just received a SPECIAL GOLD MEDAL at Santiago, Chile.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil,

and throughout the United States and England. Read extracts of testimonials:-



For illustrated catalogue, circulars, and testimonials, apply to-

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MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.**TITANIC STEEL AND IRON COMPANY, LIMITED,**
FOREST STEEL WORKS, COLEFORD, GLOUCESTERSHIRE,
SOLE MANUFACTURERS OF**MUSHET'S TITANIC BORER STEEL.**

R. MUSHET'S Special Steel for Lathe and Planing Tools (a new Steel which REQUIRES NO HARDENING after being forged); Moshet's Titanic Cast Steel for Taps and Dies, Lathe and Planing Tools, Drills, Punches, Chisels, Shear Blades, Hammers, &c., &c.

Double Shear Steel; Spring Steel; Blister Steel; Files.

MINERS' HAMMERS AND MALLETTS,
OF ALL DESCRIPTIONS.

LONDON: MR. HENRY MUSHET, LOMBARD EXCHANGE, E.C. GLASGOW: MESSRS. JOHN DOWNE, and CO., 1, ROYAL BANK PLACE. NEW YORK: MESSRS. CHARLES CONGREVE AND SON, 104 and 106, JOHN STREET.

WEIGHING PLANT,To the standard of any nation,
Suitable for every purpose, of any power and dimensions.**Hodgson & Stead, Makers,**
Contractors to Railways, Carriers, and others, for Maintaining Weighing
Machinery.Works: IRWELL STREET.
Show Rooms: New Bailey-street, Salford, Manchester.**PATENT SELF-INDICATING WEIGHING MACHINE.**

Capable of WEIGHING TWELVE TUBS A MINUTE.

BICKFORD'S PATENT

FOR CONVEYING

CHARGE IN

BLASTING ROCKS, &c.

SAFETY FUSE,
FIRE TO THE
BLASTING ROCKS, &c.
Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1861; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1865; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXPOSITION," in Paris, 1867; and at the "GREAT INDUSTRIAL EXHIBITION," at Altona, in 1869.**BICKFORD, SMITH, AND CO.** of TUCKINGMILL, CORNWALL, MANUFACTURERS OF PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:-
EVERY COIL OF FUSE MANUFACTURED BY THEM
has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF
GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS AS THEIR TRADE MARK.**THE CORNWALL BLASTING POWDER COMPANY**

ST. ALLEN MILLS, TRURO,

Beg to call attention to their WARRANTED WATERPROOF SAFETY
BLASTING CARTRIDGES, adapted for SUBMARINE BLASTING and USE
IN WET GROUND GENERALLY.

Prices and samples on application.

G. COPELAND, JUN.,
MANUFACTURER OF THE IMPROVED
PATENT SAFETY BLASTING CARTRIDGE
FOR DRY OR WET GROUND;
ALSO OF THEEMPTY CARTRIDGE CASES, IN SIZES TO ORDER.
ADDRESS, CONSTANTINE, NEAR PENRYN.**JOHN AND EDWIN WRIGHT**
PATENTEE.
ESTABLISHED 1770.)MANUFACTURERS OF EVERY DESCRIPTION OF
IMPROVED
PATENT FLAT AND ROUND WIRE ROPES
From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES.
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horrell's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULIN, OIL SHEETS, BRATTICE CLOTHS, &c.UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
CITY OFFICE NO. 5, LEADENHALL STREET, LONDON, E.C.**MARTYN AND CO.'S SELF-ACTING BUNDLE**
(PATENTED).

LICENCES GRANTED by R. MARTYN, CLINTON VILLA, REDRUTH, CORNWALL.

F. N. GISBORNE'S PATENT MECHANICAL
BALANCE-WEIGHT SIGNALS FOR MINES, &c.THESE SIGNALS supply a want long felt in giving INSTANT
COMMUNICATION in MINES at SEVERAL PLACES at the SAME
TIME without the aid of electricity, but by a single rod or chain; so that a
degree of safety is ensured hitherto unknown.The price is also very low, and the mechanism so simple that any ordinary
mechanic could put it in order if out of adjustment.The same patent, as applied to ships, has received the approval of the Chief
Engineer, Chatham Dockyard (vide *Times*, Aug. 19, 1868).SOLE AGENT FOR MINERS:
MR. GEORGE B. JERRAM, ENGINEER, WASHINGTON BUILDINGS,
BRUNSWICK STREET, LIVERPOOL.

N.B.—Mr. JERRAM is now visiting the different mines with working model.

PATENT SELF-REGISTRATION COLLIERY
WINDING INDICATOR.THIS INDICATOR, in addition to its ordinary use, INDICATES
and REGISTERS the NUMBER OF WINDINGS, thus enabling the
Manager to check at a glance the returns of the Banksman or Clerk.PEPPER MILL BRASS FOUNDRY COMPANY,
DARLINGTON STREET, WIGAN,
MAKERS.**THE PATENT SELF-ACTING MINERAL DRESSING**
MACHINE COMPANY (LIMITED).**THE PATENT JIGGING MACHINE COMPANY.**T. CURRIE GREGORY, MINING ENGINEER.
OFFICES, 62, ST. VINCENT STREET, GLASGOW.These companies possess the patents for the most approved machinery for all
the processes of dressing ores, whereby a very great saving in cost is effected.

The machinery is in successful operation at several mines in the kingdom, and is in increasing demand.

Mr. GREGORY, in connection with skilled engineers in various mining districts, has paid for the last two years special attention to this important department of mining, and it is only now, the process being in successful operation, that the attention of the public is called thereto.

Mr. GREGORY will be pleased to answer all enquiries, and give orders for inspection. He is prepared to give designs and estimates for the supply of machinery, and for the laying out of floors.

PIT BAROMETERS—MINING INSTRUMENTS.JOHN DAVIS,
MANUFACTURER OF MINING AND SURVEYING INSTRUMENTS,
DERBY.MAKER (by appointment) of HEDLEY'S DIALS.
Price List on application.STERNE'S PATENT PNEUMATIC SPRINGS FOR COAL CAGES.
Price £8 10s. per set of four.**THOMAS TURTON AND SONS,**
MANUFACTURERS OFCAST STEEL FOR PUNCHES, TAPS, AND DIES,
TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT AND CRANK AXLES, SHAFTS andFORGINGS OF EVERY DESCRIPTION.
DOUBLE SHEAR STEEL | FILES MARKED
BLISTER STEEL, | T. TURTON,
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Springs and Buffers.SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
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Where the largest stock of steel, files, tools, &c., may be selected from

MILNERS' STRONG HOLDFAST AND FIRE-
RESISTING SAFES,

STRONG ROOM DOORS, &c.,

WITH ALL THE RECENT IMPROVEMENTS.

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STREET, CITY, LONDON.**BRITISH, COLONIAL, AND FOREIGN PATENTS,**
REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c.MICHAEL HENRY,
Mem. Soc. Arts, Assoc. Soc. Engineers, Compiler of the "Inventors' Almanac,"

and the Author of the "Defence of the Present Patent Law."

PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.

Mr. HENRY has had especial experience in technical French, and in French

Manufacturing and Commercial Matters.

Inventors advised in relation to Patents and Inventions and Industrial

Matters. Printed information sent free by post. Specifications drawn and revised,

searches conducted. Abstracts, Cases, and Opinions drawn.

Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars

Street.

Just published, price 1s., by post 1s. 1d.,

HOW TO MAKE MONEY BY PATENTS:

By CHARLES BARLOW.

London: BARLOW and CLARE, 23, Southampton-buildings, W.C.

The Piel Hematite Iron Company (LIMITED).

To be incorporated under the Limited Liability Act.

CAPITAL £100,000, IN 4000 SHARES OF £25 EACH

(With power to increase to £150,000 if necessary.)

A deposit of £5 per share to be paid on allotment. Subsequent calls at intervals of not less than two months, to the extent of seven-tenths of the entire capital—the remaining portion to form a reserve.

DIRECTORS.

The Chevalier HARRY CLENCH, K.G.S., K.S.I., K.G.C., &c., &c., Norwich.

Lieut.-Col. H. RIGG, Cross Rigg Hall, Penrith.

FRANCIS PARKER, Esq., Acorn Bank, Penrith.

JOHN BEATSON, Esq., Iron Merchant, Sheffield.

E. TALBOT, Esq.—MANAGING DIRECTOR.

BANKERS—THE LANCASTER BANKING COMPANY.

SOLICITORS—LAWRENCE HOLDEN, Esq., Lancaster.

Messrs. HANCOCK, SAUNDERS, AND HAWKSFORD, 36, Carey-street, Lincoln's Inn, London.

AUDITOR—H. C. BELOE, Esq., Liverpool.

SHAREBROKERS.

Messrs. H. BAZETT JONES AND SONS, Preston.

Messrs. RIDSDALE AND WALES, Albion-street, Leeds.

Messrs. WOLFENDEN AND GELL, Corporation-street, Manchester.

JARVIS W. BARBER, Esq., 40, Queen-street, Sheffield.

SECRETARY AND ACCOUNTANT—MARDON THOMAS, Esq.

The object in establishing this company is for the purpose of erecting furnaces and smelting the richer ores of Ireland in combination with the hematite ores of the Furness district. The annual produce of the latter cannot be less than 500,000 tons per annum, a large portion of which is sent out of the district, instead of being consumed therein, which can now be done with advantage and profit.

A site for the works has been selected in the vicinity of Piel (adjacent to the iron pits, and near to the large establishment of the Barrow Hematite Steel Company), which offers every facility for the successful development of the enterprise. The close proximity of the shipping port and extensive docks of Barrow, together with the harbour of Piel, will enable pig-iron to be dispatched, and the Irish ores to be received, with advantage to the concern.

Provision will be made in the Articles of Association by which mining property in the district, and other suitable localities, may be worked by the company. Leases of hematite property, embracing some hundreds of acres, in the Furness and other districts, are now under consideration, with a view to their being transferred to this company on advantageous terms.

The company will be duly incorporated under the Limited Liability Act, by which every shareholder is responsible only for the amount of his share.

It is proposed to place the capital at £100,000, in shares of £25 each; to call up (say) £70,000 (in periodical payments, as may be required), and allow the remainder to form a reserve capital.

The cost of erection of three modern-built furnaces, with all requisite appendages, purchase of land, &c., will be £50,000, thus leaving of the called-up capital £20,000 as a working fund.

The cost of making iron will be about £2 12s. 6d. per ton, and the selling price

is now £3 per ton at existing works; so that upon a weekly output of (say) 1200 tons on the average (that is, after allowing for the variations of the Iron Market), from three furnaces, good profits will accrue to the proprietors, equivalent to a return, on the average, of 15 per cent. per annum.

The Furness Railway Company, whose main line passes the intended site, have kindly intimated their wish to render all possible assistance to the projected company.

The market for hematite pig-iron is now on the advance, and as it is the only class of iron employed in the Bessemer system, it is fully evident that a constant demand must exist, and continue to increase, for there can be no doubt, now that the Bessemer royalty has terminated, a great impetus will be given to this special branch of manufacture; its future requirements, therefore, will be very considerable, and as the production of hematite pig-iron must necessarily be restricted, it will be seen that a good and permanent prospect of success awaits this important section of the iron trade.

Applications for shares will also be received by the solicitors of the company, LAWRENCE HOLDEN, Esq., Lancaster; and Messrs. HANCOCK, SAUNDERS, and HAWKSFORD, 36, Carey-street, Lincoln's Inn, London, from whom prospectuses can be obtained.

FORM OF APPLICATION FOR SHARES.

To the directors of the Piel Hematite Iron Company (Limited).

GENTLEMEN.—I request that you will allot me shares in the above company, and on receipt of notice of such allotment, I will pay to the bankers of the company £5 per share as deposit; and I undertake to pay any future calls as they may become due. I further request that you will place my name on the Register of Members for the shares so allotted.

I am, Gentlemen,
Name.....
Residence.....
Occupation.....

THE PIEL HEMATITE IRON COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the LIST OF APPLICATIONS FOR SHARES in the above company will be CLOSED ON TUESDAY next, the 21st. instant, both for TOWN and COUNTRY.

Bryn Llygwy Lead Mines Company (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867.

CAPITAL £25,000, IN 12,500 SHARES OF £2 EACH.

10s. per share payable on application, 10s. on allotment, and the remainder when required, but no call to exceed 10s. per share, nor at less intervals than three months.

DIRECTORS.

GEORGE BRAND, Esq., Park-road, Twickenham.

JOHN M. DAVIS, Esq., Renfrew House, Southsea.

WILLIAM WILDING, Esq., Montgomery.

(With power to add to their number.)

BANKERS—THE NORTH AND SOUTH WALES BANKING COMPANY, Liverpool, and Branches.

LONDON AGENTS—LONDON AND WESTMINSTER BANK, Lothbury, E.C.

BROKER—JOHN INCHBALD, Esq., 2, Copthall-court and Stock Exchange, E.C.

SOLICITOR—S. B. SOMERVILLE, Esq., 48, Lincoln's Inn-fields, W.C.

RESIDENT AGENT—Captain JOHN LEAN, Treloggen Mines, Holywell.

SECRETARY—GEO. H. CARDOZO.

OFFICES,—15, NEW BROAD STREET, LONDON, E.C.

PROSPECTUS.

of the one part, and John Moore Davis, a trustee on behalf of the company of the other part, has been entered into for the sale of the leases, machinery, plant, &c., to this company for the sum of £4000 in cash, and £5000 of the company's shares, paid up in full. A copy of this contract can be seen at the company's offices.

Reports have been obtained from Captains John Kitto and John Nancarrow, both mining engineers of the highest respectability and standing, and they afford ample evidence of the unusually promising and rich mineral deposits in these mines.

The present prices of recently established Welsh lead mining companies prove the great success of these undertakings:—

	Amount paid.	Price, June 16.
Assheton	£5	£7 to £8
Tan-yr-Alt	3	4½ to 5
Van	4½	78 to 81

The property will be taken over, and operations commenced by the company as soon as a sufficient number of shares have been applied for.

Prospectuses, with the reports, and forms of application for shares, can be had of the Broker, or the Secretary, at the company's offices.

ISSUE OF UNALLOTTED SHARES.

South St. Just Tin Mining Company (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867.

CAPITAL £10,000, IN 5000 SHARES OF £2 EACH TO BE FULLY PAID-UP.

No further liability.

DIRECTORS.

Major PATERSON, Army and Navy Club, Pall Mall.

WILLIAM FREDERICK TRITTON, Esq., 20, Nicholas-lane, E.C. (East India Merchant).

Col. PAGET, Farnham, Surrey.

GEORGE BURSLEM, Esq., Whitehall Yard, S.W.

BANKERS—LONDON AND SOUTH-WESTERN BANK, Lombard-street, E.C., and Branches.

SOLICITOR—ROBERT WARD STACPOOLE, Esq., Pinners' Hall, Old Broad-street.

LOCAL PURSER—WILLIAM ANGWIN, Esq., St. Just, Cornwall.

SECRETARY (pro tem.)—F. W. GRANT, Esq.

OFFICES,—225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

This company is established for purchasing the sets of, and machinery on, a mineral property situated in St. Just, Cornwall, and working a series of valuable tin lodes in a district long known and celebrated as one of the richest in the world, more especially for high quality tin ores.

The returns and profits from the mines in this district are so great as to almost surpass belief. Their position in the Dividend List is a sufficient guarantee for the present, and the prospects of the mines as they are being opened out warrant the assumption of a long-continued course of prosperity for the future.

The sets are very extensive, and have been granted at the unusually low royalty or dues of 1-94d. for the term of 21 years, on the mining conditions generally adopted in Cornwall.

Their geological position cannot be surpassed, being in beautiful congenital strata for tin and copper ores, in the granite near the junction with the killas. Intending investors, previous to applying for shares, may obtain an order at the office of the company, where prospectuses and every information may also be had, and specimens of the ores seen.

Original Correspondence.

ANOTHER "NOVELTY" FROM CARDIGANSHIRE.

SIR,—At Blaen Caean Lead Mine the 8-horse power steam-engine I have had placed underground in end of adit, near the engine-shaft, was yesterday set to work with great success. This is the first steam-engine placed underground in any mine of this county. I believe that Capt. Waters, at Tankerville, has just started, or is about to start, one in the 70 fm. level of that valuable mine; while at Allt-y-Crib (Tal-y-bont) one is being fitted by Mr. Green for the Girdwood Company.

Although several mortifying delays—quite unexpected, and from unavoidable causes—have taken place, I am gratified to be able to state that Messrs. Durie and Davis, of the Aberystwith Foundry, who had contracted to erect this engine, and attach drawing-machine and all other necessary appliances, have done their work admirably. The foundations of engine, boiler, and drawing-machine are very compact, in a space of 34 ft. by 12 ft., and 10 ft. high, cut out of solid rock at a depth of 150 ft. from surface; and the smoke, after first passing under the boiler through a brick flue, all laid in cement, is carried by a wrought-iron chimney-stack, 14 in. in diameter, up the shaft, to 12 ft. above surface. The engine went to its work with all possible ease, and it was remarkable to notice the slight check or strain which the attaching of the motions, one after the other, made to its working power; thus it was christened "The Little Wonder." This engine was manufactured by Sir J. Baunet and Co., of Deptford, for the Castle Hotel of this town, but never erected, the boiler and connections being made by Messrs. Durie and Davis for the mine.

Yesterday was a red-letter day on the Blaen Caean Mountain, and it is destined, I hope and believe, to be the forerunner of the establishment of a large and good paying mine here. The water will at once be got out of the 10 fm. level below adit, the workings cleared up, and a cross-cut level immediately started south from the end of the level, about 18 fms. east of shaft. There is a fine ore lode in the end. This cross-cut will open up an additional 10 fms. in height of ore ground, which, by the level and cross-cut above, we have already proved to be 25 fms. long by 5 fms. wide, and in less than a month we shall be in a position to sink this shaft another 10 fms. This is some compensation for the disappointment at not cutting the lode by the main or straight adit going north; however, as I have said before, it is only a fact delayed—and as the 23 east is extended on the same lode we get enlightened as to the cause of this delay.

When the lode was dialled in February, by Capt. Kemp, of Bronfloyd, the drafts taken proved an average bearing of 10° S. of E.; the level has since been advanced about 30 fms.; the bearing of the lode has varied many times during that length, but it seems now to have settled down to run from 15° to 20° N. of E., a difference of nearly 30° since the draft of its run in February. This will throw the lode much further north in advance of the adit end—and, in fact, the adit itself has been opened 27½ fms. since we resumed it on Feb. 14. I believe the extent of the workings in this mine since we started will compare very favourably with any other in the Principality, and for which dispatch great credit is due to the energy of the underground agent, Capt. John Evans.

Having now received approved working plans of the buildings for the 16-horse power horizontal engine, which is being made at the Perran Foundry (Sir Fredk. Williams and Co.), and having purchased a 40-ft. water-wheel, and entered into a contract with Messrs. Durie and Davis for a 36-in. crusher and drawing-machine, we shall proceed at once to erect the buildings, and, on their completion, to get our ore to market.

J. B. BALCOMBE.

[For remainder of Original Correspondence see this day's Supplement.]

PNEUMATIC STAMPS.

For the convenience of gentlemen interested in mining operations a series of experiments are to be made at the works of Messrs. HARVEY and Co., Hayle Foundry Wharf, Nine Elms, in the course of a few days, with a view to demonstrate the advantages of the pneumatic stamps, which have been extensively introduced in Cornwall during the last 12 months. The feeling generally expressed is that considerably more work is done by the application of the same amount of power.

In the Pneumatic Stamp the motion is conveyed from the crank to cap and guide cross-head, on piston-rod, by an ordinary connecting-rod. Attached to its lower end is the piston-rod, and piston packed with double reverse cup-leather packings; the piston is 4½ in. diameter, and operates freely in the upper part of a gun-metal cylinder, 3½ ft. in length; attached to the bottom of this cylinder, by a socket in the usual manner, is the round stamp-head of chilled cast-iron, 9 inches diameter. The upper end of the cylinder is bored, to receive the piston, to a depth of 14 inches; the piston-rod plays air-tight through the cylinder cover, which is screwed metal to metal on the cylinder. The working barrel of cylinder is pierced with two sets of small holes, for the ingress and egress of air, discharging the air behind the piston after it has been once used as an elastic cushion. Suppose the head to be set in motion with the crank in a horizontal position, the piston being in the middle, vertically, of the working barrel of cylinder, and midway between the two sets of air-holes referred to. As the crank and attached piston rise, the air is compressed between the piston and cylinder cover, and the cylinder, with stamp-head attached, is forced upwards. When in rapid motion, the elasticity of the compressed air between the piston and cover flings the cylinder, with head, some inches above the range, due to the motion of the crank; on the descent of the piston below the bottom set of holes in the cylinder, the air is compressed in a similar manner, and the cylinder is forced down by the compressed air between the piston and cylinder bottom, until the stamp-head strikes the ore in a coffer-trough; thus, whether the quantity of ore be large or small, the blow is always effective, the only difference in the working of the machine being a shorter or longer vertical play of the cylinder and head.

The whole external arrangement for driving the head resembles a small vertical steam-engine, with a stamp-head attached to the cylinder bottom, with this difference, when in action the crank works the piston, and both piston and cylinder have a vertical play. The cylinder, as already stated, serves as a lifter for the stamp-head, and works in a deep guide, running across and uniting the side frames. Water is admitted into a chamber at the bottom of the guide, and escaping downwards, around the cylinder, into the coffer, prevents the pulverised ore from being forced between the guide and cylinder, keeping the rubbing surfaces clean in a very effective manner. The flow of the water also prevents the heating of the cylinder, which would otherwise result from the continual compression of air, and also supplies the necessary water for mixing with the ore in the coffer; grate-plates are fixed on each side, and extend the whole length of the coffer, giving an area of 250 square inches per head.

LIQUID FUEL.—Considerable interest is at present felt in the United States in connection with the substitution of liquid for solid fuel, in consequence of the success which has attended the invention of Messrs. WHIPPLE and DICKERSON, of Chicago. The distinctive peculiarity of this process consists in the evolution of hydro-carbon gas, which is conducted to the fire-box, and there burned from ordinary pipes, as in a gas-stove. The process of evaporation is the chief feature of the discovery. Steam from the boiler passes through a pipe into the fire-box, where it is superheated in a small iron cylinder to a temperature of from 500° to 700°, or even a greater temperature if desired; thence it passes through a pipe to a cylindrical generator, some 4 ft. high by 2½ ft. in diameter, containing 600 copper tubes of small size. The superheated steam passes through these tubes while the petroleum is contained in the spaces around them. The intense heat here, of course, volatilises the oil with great rapidity, and the gas passes into an envelope enclosing the generator, similarly to a water jacket. From this it rises through a layer of sponge, to equalise the pressure, into the dome of the machine, whence it passes into the fire-box of the boiler, and is consumed through an ordinary frame of burners with a force and heat far superior to any produced by coal. The practical application of petroleum as fuel was mentioned in last week's *Mining Journal*, and the value of petroleum, as compared with coal, was there carefully shown. Taking journeys amounting to 1250 miles in all, which have been performed without accident of any kind, the consumption of oil was 35 per cent. less by weight than that of good patent compressed coal. Each pound of fuel consumed evaporated 12 lbs. of water; with which a more satisfactory result could scarcely be hoped for. That the use of petroleum gas, and not of petroleum in the ordinary condition, produces the best result appears to have been now established, and this opinion is in a measure confirmed by the excellent results obtained with natural petroleum gas under the boilers at the Erie Water Works. These are now heated solely by the flow of natural gas from the well recently sunk there. The gas is conducted by a 1½ in. pipe, without gasometer, through smaller pipes underneath the boilers. The flow has been steady, and less than one-half the amount has been necessary to keep up a pressure of

Meetings of Public Companies.

GREAT WHEAL VOR MINING COMPANY.

The quarterly general meeting of the shareholders will be held on Wednesday. The profit and loss account for the three months ending March is as follows:—

Black tin sold, March	£5541	8	11
ditto April	3541	3	8
Tribute and royalty on tin sold from Rosedale, &c.	91	9	2
Half-year's rent of Trellissick Mill to Christmas, 1869.	7	10	0
One year's rent of Poldown tenement, Lady-day, 1870	5	0	0
Old rope sold	14	2	0
Sundries sold and cash balances	6	10	3
Mine cost	44426	1	8
Merchants' bills	2017	6	7
Income tax on profits for the year 1870	304	1	5
Lord's dues	498	9	7
Sundry payments, including London expenses	281	12	10
Leaving balance (profit)	£1479	12	4

The ground sunk and driven during the three months was 40 fms. 1 ft. 3 in.

EBBW VALE STEEL, IRON, AND COAL COMPANY.

The meeting of shareholders is convened for Thursday next, when the following report from the directors will be presented:—

In issuing the balance-sheet for the year ended March 25, the directors have much pleasure in being able to state that the steady demand for railway iron which commenced last year has continued, and that looking to the enquiries, both for foreign and home account, there is every probability that for some time to come the orders for steel and iron rails will show no falling off. The coal and coke rates have been rather better for the past than for the previous year, but the great competition in these branches has rendered it impossible to secure a fair profit; still there are symptoms of improvement, and it may, therefore, be confidently expected that the profits earned this year from the above sources will be such as to give satisfaction to the shareholders. The balance-sheet shows a net profit of £11,298. 1s. 2d., which, with a balance of £2592. 2s. 5d. brought forward from last year, makes a total of £17,557. 3s. 7d.; out of this sum (after deducting the Interim dividend of 10s. per share, paid in December last) the directors recommend a dividend of 20s. per share, making a total of 30s. per share for the past year, free of income tax, and leaving £8447. 1s. 2d. balance to be carried forward to next account. The directors have also to inform the shareholders that besides keeping the works and machinery in thoroughly good working order, they have expended the sum of £1,000. In addition, all of which has been charged against revenue. It will be noticed, however, that the sum of £907. has been charged to outlay for fresh mineral property. This purchase has been effected by the directors, as it ensures full possession of all mineral rights in the estate, and in addition saves at once (in dead rent, way-leave, &c.) a sum equal to rather more than 5 per cent. per annum on the amount of the purchase money. The directors have devoted their attention particularly to the improvement of the appliances for the manufacture of steel rails, and having found the present mill insufficient they determined to erect a new rolling-mill, calculated to turn out 30,000 tons per annum, which they hope will be completed in July next; and as this new mill adjoins the converting house, great economy in labour will be effected. It will be seen, on reference to last year's accounts, that the debentures which became due in August and October have been paid off, and the attention of the shareholders is called to the marked improvement in the financial position of the company's affairs. By comparing this year's accounts with those issued in 1868, it will be noticed that the sum due to creditors have been reduced from £87,773. to £72,886, thus showing that liabilities amounting to £15,892. have been discharged, which must be regarded as satisfactory, no call having been made upon the shareholders during this time. It will be noticed that during the year a sum of £1,559. 6s. 4d. has been realised from the doubtful debtors, whilst further important dividends on several of the estates in course of liquidation have since been received, and others are shortly expected, and it is still hoped that the sum of 9s. 10s. £. 1s. 4d. reserved against these debts will be sufficient to meet any loss arising from this source.

NERBUDDA COAL AND IRON COMPANY.

The tenth ordinary general meeting of shareholders was held at the London Tavern, on Wednesday, Mr. S. J. WILDE in the chair.

Mr. H. HEATH (the secretary) read the notice convening the meeting.

The report of the directors appeared in last week's Journal.

The CHAIRMAN said it was with great satisfaction that he met his fellow shareholders upon the present occasion, because the long-looked-for goal had been reached—the completion by the Great Indian Peninsula Railway Company of their line to Jubulpore. There was now a line of railway opened within 12 miles of the company's collieries, whereas the last time he met the shareholders the nearest railway communication was at a distance of 300 miles in one direction, and about 90 miles in the other. The branch line from Jubulpore up to the company's collieries had not yet been begun, but the Government were very anxious that it should be commenced, and there was no doubt the work would be soon put in hand, and at no cost to this company. Upon this point he would ask the secretary to read a letter which had been received from official sources.

The SECRETARY then read the subjoined communication:—

"Referring to previous correspondence on the subject of connecting by rail the Nerbudda coal fields with the Great Indian Peninsula Railway, ending with my letter No. 1255 R, dated Sept. 3, 1869, I am directed to request that the Government of Bombay will, at once, issue orders for the preparation of a project and estimate for a single line branch to the coal pits, keeping in view the wishes of the Secretary of State, that equal facilities shall be afforded to all the coal fields in the district. The works should be designed with the strictest attention to economy, and to suit a low speed, but on the standard gauge, so as to carry the stock of the present line. A general project and estimate, in an abstract form, with a specification of the character of the line, should be submitted as early as possible. The Government of India will be glad if the Government of Bombay will consider the propriety of the branch being carried out as a Government work, not necessarily under Government engineers, but so as to leave the ownership with the Government. This will secure a more complete and satisfactory control over the rates of charge on the branch, in respect to which differences of opinion might arise. If such a plan be adopted, the railway company might be employed to execute the work if thought expedient, and if desired by them. The consideration of this suggestion should not, however, be permitted to interfere with the earliest practicable execution of the work, which the Governor-General in Council regards as of much importance."

The CHAIRMAN said the long delay in the completion of the railway had had a most injurious effect as regards the exhaustion of their capital, for instead of an expenditure of £30,000., as originally contemplated, it would be something like £80,000., thus absorbing the capital proposed to be expended in the construction of iron works. Application had been made to Government for permission to have the obligations removed with regard to the construction of those works, and they had strong hopes the appeal would be attended with success. Since the formation of the company more precise information had been obtained as to the iron that could be made in India, and he thought it was now admitted on all hands that, irrespective of cost, the iron, commercially speaking, was an utter failure. Under any circumstances, they had five years before them before they were bound to make any iron, so that it was a matter that did not press for the moment. As to the coal, there was no question the demand in all parts of India would be enormous, far exceeding, he believed, the supplies that could be obtained. He thought, however, it was for the interest of shareholders that no question should be asked about the supply, or the price at which the company proposed to supply it; he thought it would be very much to the interest of shareholders that nothing should be said upon the subject to-day. Mr. Simpson had left the company's service, and the services of Mr. Adley, one of the directors, had been secured. Mr. Adley had been appointed their manager, and he (the Chairman) thought they had been most fortunate in having obtained such services. That appointment left a vacancy in the board, which it was not proposed at present to fill up. It was thought that the vacancy should be kept open, in case any gentleman could be found whose connection with India might prove of service to the company. That, however, was more a shareholder's than a directors' question. He might mention that within the past few days an official high up in the Indian Government had applied to them for shares, and 1000 had been allotted to him at par. The directors deemed it to be an advantage to the company to get a hold in India among the officials. It was thought that their coal might be used for making gas, and steps had accordingly been taken to ascertain whether it was so or not. There were seams of Cannel coal, and being only 12 miles from Jubulpore, which was a junction station between two lines, there was no doubt that gas works there would be extremely useful to the railway, and he hoped they would be able to supply coal for that purpose. He congratulated the shareholders upon the prospects of the company; and the directors were very large shareholders. He did not think the time was far distant when they would be able to say that they were earning a dividend. (Hear, hear.) Two wagons of coal had been sent to Bombay, where they knew it would have a fair trial. He might add that it was a very difficult thing to get coal fairly tested in India. English engineers, who had not been very long in India, had a strong prejudice in favour of English coal; and he need hardly say that the result of the experiments very much depended upon the will of those by whom the experiments were made. It was intended to test their coal with English coal, and that had been in India for a few months, so as to give it a thoroughly fair trial. He then moved that the report and balance-sheet be received and adopted.

Col. FRENCH seconded the motion.

Mr. VICTOR (an engineer recently engaged upon the railways in India) stated that the land between Jubulpore and the company's collieries was nearly flat. The line could probably be constructed for between 20,000. and 30,000. per mile. There was no doubt as to the quantity nor the quality of the coal at the Nerbudda Collieries, the only thing required was a little skill of mining, under the supervision of such a person as that whom the directors had appointed as manager. The collieries ought to produce 25,000 tons per month, but to do that the works must be extended. There were other seams of coal within 1½ miles of this company's fields. It was distinctly coal, but without going very deep it could not be worked to advantage. The seam was on edge, and he believed it had been worked on account of the Great Indian Peninsula Railway Company, but from what he had recently heard he believed it had proved a failure. For years the Nerbudda Coal Company could have no competitors.

Mr. VILLEBOISNET said that nothing could be more satisfactory than the statement of Mr. Victor; and he (Mr. Villeboisnet) would suggest that the means should be provided to enable the manager to put the collieries in a position to return 25,000 tons per month, although it might necessitate a small call. He congratulated the meeting upon the full and satisfactory statement made by their Chairman, which could not fail to inspire the greatest confidence. As to the expenditure, although he urged the exercise of the greatest economy until they were in a dividend-paying condition, yet he felt assured that whatever

amount of remuneration the secretary received his services were not sufficiently remunerated. He congratulated the shareholders upon the present position of the company, and could only urge upon them not to sell their shares at the present price.

Mr. COPE said that the prosperity of the concern hinged upon the completion of the 12 miles of railway between Jubulpore and the collieries. Directly this was made the company would be in a position to sell coal. He suggested that the matter should be brought under the notice of the Duke of Argyll. He also suggested that half-yearly meetings should be held.

The CHAIRMAN said that up to a certain time they did what they could to place the collieries in a position to supply coal equal to the demand, but at last they reduced their staff, and for the last two or three years every possible expenditure had been reduced. At the present time, however, a very fair demand could be supplied. They had always told the Great Indian Peninsula Railway Company that if they would enter into a contract before the line was finished, they would be able to supply all the coal they wanted directly. It was required, No contract was made, and as far as he was concerned, he did not now feel inclined to incur any large expenditure until it was absolutely necessary—until, in other words, some contract had been entered into, because eventually they would be able to sell all the coal they could possibly raise. As to a call, he could not at present say whether they would require one or not—it depended much upon how soon they began to sell coal. If, however, a call was made, it would not exceed 6s. per share. As to the construction of the branch line from Jubulpore to the mine, that was the only point upon which it might be said the board were not unanimous. Personally speaking, he was opposed to this company undertaking its construction; but he hoped the question would be left to the directors, who were large shareholders—far larger than their interest as directors. Application had already been made to the Duke of Argyll, showing the necessity of making the line. As to half-yearly meetings, they had not hitherto been held, simply on the ground of expense, but as soon as dividends were paid, such meetings would be held.

The motion adopting the report and balance-sheet was put and carried unanimously. The retiring directors were re-elected, and Messrs. Waddell and Co. were re-elected auditors.

A vote of thanks to the Chairman and directors terminated the proceedings.

BRYNPOSTIG MINING COMPANY.

An extraordinary meeting of shareholders was held at the London Tavern, on Monday, for the purpose of resolving, in the terms of the sixth and seventh clauses of this company's Articles of Association, that the capital of the company be increased by the creation and issue of additional shares.—Mr. J. B. TAYLOR, J.P., in the chair.

The report of the manager (Capt. John Kitto) stated that notwithstanding the work for which the last increase of capital was called up had been fully accomplished, yet the result obtained had not been so satisfactory as he could desire, or even such as they had at that time the strongest reason to anticipate. The engine-shaft has been sunk to the 45, and the 36 driven east of the same, on the course of the lode, for upwards of 30 fms., through profitable ground for nearly the whole of that distance, varying from 12 to 25 cwt. of ore to the fathom; and judging from the productive nature of the lode in the driving of this (36) level, together with the fact of having raised such a large quantity of ore from above the 24, he very naturally expected that ground of the same productive quality would be found between the two levels, but in this he has been disappointed. Stopes have been commenced in the roof of the 36, with every prospect of the ore holding through to the 24, but they had not stopped many feet above the roof of the level before they got into a floor or bed of almost unproductive ground, which, although they have spent a considerable sum of money in proving it, has yielded little ore to value, and whereas they raised between the 12 and 24 fm. level nearly 300 tons of lead ore, yet between the 24 and 36, where they reasonably expected a much larger quantity from the increased length of ore ground in the latter level, they have not raised more than about 70 tons, and still there is nothing encouraging about this so far as the future of the mine is concerned, as poor floors of ground of this description are found in the very best mines. But this has unfortunately happened at a time when they were not prepared for it, and instead of having the proceeds of the anticipated sales of ore to enable them to prosecute the future development of the mine to an extent which its prospects fully justify, they have made another appeal to the shareholders for further capital. He would suggest, in order to place themselves beyond the probability of having to do so again, that 500 new shares be issued at par to the present members of the company, and with this amount he is fully convinced the mine can be opened out and developed to an extent that will show beyond a doubt the merits and value of the property, and will undoubtedly place the same not only in a self-supporting but in a dividend-paying position. To show more fully the confidence he has in the ultimate success of the undertaking, he would be glad to have 50% of the new shares (provided the whole are taken up), equal to one-tenth of the number proposed to be issued. The mine, plant, and machinery are all in excellent order, the latter is working very satisfactorily, and is equal in every respect to the requirements of the mine for a considerable time. Shareholders will do well to visit the property, and he would have great pleasure in showing them the works, and affording full information.

The CHAIRMAN said that the notice just read had informed the shareholders that the object of the present meeting was to raise additional capital. Probably shareholders would like to know the reason that had rendered this step necessary after the expenditure of the 3000L, which was called up some time since. When that 3000L was raised the mine was not provided with efficient machinery, and it was deemed prudent to make an considerable expenditure on that account until the mine had been proved; so that, in reality, a considerable proportion of that additional capital had been expended in testing that the mine really warranted the outlay. Encouraged by the length of ore ground passed over in the upper level, they had commenced the driving of the 45 fm. level, where good pay ground was met with, although they knew from the level above that the best ground was still before them. As an evidence of this, a winze had been sunk from the 36 in advance of the 45 fm. level end, where the lode was of considerably greater value than the present end in the 45, and discoveries had been made which did not show themselves in the upper level. The manager says that the appearance of the lode in the winze exceeded anything he had ever yet seen in the mine. That 3000L was, therefore, asked for to enable them to sink the shaft to the 45, to prove the lode at that point, to prosecute the different levels, and to erect the man-engine, and the whole of that work had been done not only within the time computed, but the adverse balance had been reduced from 1800L to 1300L. He had pointed out upon previous occasions that the mine possessed great mineral capabilities, for while the character of the lode improved in productiveness in depth in the hill there were "backs" of no mean mineral value. Some of the most material points in the mine, however, they had been unable to prosecute by reason of that want of capital—that was really their sole difficulty; and if the mine was to be prosecuted with that vigour which it was proved to have, it was necessary to have the means wherewith to carry out the necessary operations. The amount proposed to be raised was 5000L, but it was not thought probable it would be necessary to expend that amount, the more particularly if the present prospects should continue; but shareholders might rest assured that whatever amount was expended would be for their benefit. He had no hesitation in saying that any shareholder who subscribed for the additional shares would not regret having done so. He might mention that one shareholder, after having personally examined the property probably better than the directors, had agreed to take a large proportion of the new shares proposed to be issued, while their manager had signified his intention of applying for an additional 500, and another party would apply for 100, so that every share would be quickly absorbed. But, of course, if the meeting should agree to increase the capital to the extent of 5000L, the shares would, in the first instance, be offered *pro rata* to the present shareholders; if they did not take them, not a day would pass before the whole would be absorbed.

Mr. MARSHALL asked if it were thought this 5000L would be sufficient for all purposes if the present favourable prospects should fall off?—The CHAIRMAN said he did not for one moment expect they would require to expend the whole of the 5000L, a great deal depending upon what quantity of lead was turned out by the different points of operation. If the deeper levels, so far as explored, had turned out as much lead as did the level above, the directors would now not only be in a position not requiring further capital, but would have ample to recommend the declaration of a dividend.

Mr. C. A. POWELL asked if the winze from the 36 to the 45 continued of greater value than the 45 fm. level end?—Capt. Kitto said that recently the 45 fm. level end had improved in a greater ratio than the bottom of the winze from the 36 fm. level.

Mr. MARSHALL asked what would be paying ground?—Capt. Kitto said that the ground was so easy in its character that a lode yielding 10 cwt. to the fathom would pay very well. The present value of the lode in the winze was at least 12s. per ton per fathom.

The CHAIRMAN said that the lode in the 12 fathom level gave lead to the value of 4000L.

Mr. MARSHALL enquired the comparative depth of the Van Mine with the Brynpostig?—The CHAIRMAN said that the surface of the Van Mine was deeper than Brynpostig. The Brynpostig lode was the nearest known parallel to the Van Mine.

Mr. ROSEN said that since the Van Mine had been mentioned, it might not be out of place to remind the shareholders that Van, like Brynpostig, had decided upon raising additional capital—a step which all prudent men would regard as most judicious, as it would release the revenue from expenditure on capital account, and at the same time enable the returns and dividends to be at once increased. As Brynpostig shareholders, he did not think they could follow a better example than that set by the Van Mining Company.

Mr. OWEN said there would be no difficulty about the new shares, for if any of the shareholders were not disposed to take their proportion there were others who would gladly take them. The great object of the directors was to keep the mine free from debt. The directors were by far the largest shareholders; and he need hardly say that they would continue to do everything to promote the permanent interests of the mine.

Resolutions were then passed to the effect:—"That under clause 6 of the Company's Articles of Association the capital of the company be increased to 20,000L, by the creation of 5000 additional shares of 1L each; that under clause 7 of the Company's Articles of Association such additional shares be offered at par to the present shareholders *pro rata* to their respective holdings, and that any sum of said shares remaining unapplied for by the present proprietors on Friday, July 1, 1870, be disposed of by the directors in such manner as they may think most beneficial to the company; and that 10s. per share be payable upon the 5000 shares upon application, and that no further call be made without giving three months notice thereof."

A vote of thanks to the Chairman concluded the proceedings.

THE PROSPECTS OF SOUTH WHEAL CROFTY.—At the meeting of the adventurers in this mine, on Monday, an interesting report upon the position and prospects of the enterprise was presented by the purser (Mr. E. H. Rodd), in which he stated that during the last four months the agents have kept in view the diminution of the copper and the increase of tin in this mine, and, as far as possible, preparations have been made in anticipation of the necessity of returning the tin by the erection of stamps, both the increased quantity and improved quality justify their ordering the necessary machinery which will be erected and placed on the mine for that purpose. Towards this he has charged in the account a sum of 60L. With the exception of this sum, the re-

turns the ordinary working costs and the merchants' bills. It must be, however, calculated that in the next account they will have to debit about 300L. on this head. It will be seen that the present balance on the books will be, with the charge of 60L., about the same as at the last account, after the payment of the usual dividend of 10s. per share. This must be attributed to the increased quantity of tin, the better quality and better price, the copper being nearly exhausted. If this continues they will probably be enabled to continue to show the accounts in the cost-book in a favourable form, after charging all bills, which he will constantly do from time to time.

GEOLOGICAL EXCURSION.—The members of the Geologists' Association made an excursion on Saturday to Hampstead Heath, under the guidance of Prof. Morris and Messrs. S. H. Pattison and C. Evans. Starting from the Swiss Cottage, they crossed the Conduit Fields to Hampstead. On the way the position of the Midland Railway tunnel, excavated in the London clay, containing *Nautilus*, *Pholidonyx*, and many other fossils, was pointed out; and resting on the rise of the hill, Prof. Morris explained the geological structure of the extensive district seen to the south and south-west. The sections of the middle Eocene, or Bagshot sands, by the sides of a new road near the Sailor's Orchard, were examined, and the position of these sands forming a capping of the hill, and resting on the London clay, was explained by Mr. Pattison. The party then proceeded across the Heath to the Log of Mutton pond at North End; here patches of the London clay, raised during some late drainage works, were seen, and specimens of a characteristic fossil (*Pectunculus decussatus*) of the Highgate zone of the London clay were obtained. From an adjacent hill, capped by the sands, Prof. Morris pointed out Harrow Hill, also capped with the Bagshot sands, and explained that this upper deposit must once have been continuous, and that the intervening valley had been formed by denudation. He also explained that the sand at the top of the hill was a water-bearing stratum, giving rise to several streams at the junction with the subjacent clay, and that numerous minor valleys, descending from the hill, had been formed by these streams; good examples of these valleys were seen at North End and at the Vale of Health, the pond at the latter spot forming the head waters of one of the branches of the Fleet. After the excursion Mr. C. Evans kindly invited the party to inspect his

precludes the hope of any material change in the shares. As the price of tin is to Great Vor, so the price of copper is all important to Devon Consols. Low quotations mean low dividends. WEST CHIVERTON are firm, at 55*l*. to 56*l*. HERDSFOOT are lower, and quoted 39*l*. to 41*l*. TANKERVILLE are slowly advancing, and VAN appear likely to attain a much higher price in the course of the next two months.

EBERHARDT AND AURORA.—The special report from Mr. Thos. Phillips states that the ores in these mines are rich, extensive, and valuable, and, if properly selected, you may reckon on an average assay value of (at the very lowest computation) \$40 to the ton, probably a much higher one. With certainty an output of at least 80 tons a day, or 24,000 tons a year, and double this quantity if necessary, may be reckoned upon. To reduce the cost of hauling, it would be advisable to construct a tramroad from the mines to a spot in the Eberhardt Valley, where two new mills, of 3*l*. stamps each, capable of crushing 80 tons a day, should be at once erected. There is sufficient water for the supply of these mills obtainable from the Applegarth springs, from which a connection with the mills can readily be made. The cost of the works may be estimated at \$25,000*l*. The extraction of the ore, which is a chloride of silver, resembles quarrying rather than mining, and varies much in quality and richness, the assay value being in some cases \$900*l*, and in others only \$25*l* to the ton. Labour is sufficiently plentiful, but wages and the prices of materials high, which is not surprising, considering the district and its distance (120 miles) from the nearest railway station (Elko). These mines have only been recovered and working during the last two years. The present proprietors have extracted a large quantity of very rich ore from some of the pipes. And it advantage be taken of the summer weather, they can be all complete and ready for use in five months time. The cost of management of both properties, including mines, mills, labour, material, transport, hauling, taxes, salaries, and all charges, should be amply covered by \$20 a ton, if not less, so that taking the average assay value to be only \$40 a ton, there would be a profit of \$20 on 24,000 tons in the year, or 96,000*l*. He has, therefore, no hesitation in stating that the properties are not only well worth 200,000*l*, but will be a remarkably cheap purchase; and, with ordinary care and management, must yield a very handsome return.

MINING NOTABILIA.

EXTRACTS FROM OUR MINING CORRESPONDENCE.]

A telegram was received yesterday afternoon from the agent of EAST WHEAL GRENVILLE, stating that the 45 fm. level east had further improved to 2*1/2* tons of copper ore per fathom. The present value of various places in the mine is as follows:—The 45 east is worth 2*1/2* tons per fathom; the 55 east is worth 5 tons per fathom; the stope above the 55, No. 1, is worth 5 tons; No. 2, 2*1/2* tons; No. 3, 2 tons per fathom; the 75 east, 1*1/2* tons per fathom; and the 95 east, 1*1/2* tons per fathom.

BOTALLACK MINE has just sold tin ore at 86*l*. 5*s*. per ton; and Great Work Mine at 88*l*. Uranium has been found at Trelyon Consols Mine. The uranium found at Wheal Owles fetched 50*l*. per ton.

A discovery of tin at NORTH POOL MINE in the 24 fathom level has taken place.

PACIFIC.—Most important advices were received on Monday from one of the mines belonging to this company—the Lander Hill. The intelligence received, I am informed, fully confirms all previous reports as to the improving extraordinary richness of the mine, and leaves no doubt that the returns will soon place the Pacific Mining Company at the head and front of foreign dividend-paying mines.

EXCELSIOR (Tin and Copper).—A great improvement has taken place in this mine during the past week on Thorne's lode, which at a depth of 8 fathoms is producing excellent tin-stuff. This mine promises to satisfy the most sanguine expectations of its proprietors, and great results are expected on cutting the lode in the 40*l*, in the deep adit, now being vigorously driven.

The famed district of Callington has lately seen another mine commence operations; they intend calling it "THE LADY ASHBURTON," after the noble lady the owner of the property. This is considered one of the best pieces of mineral ground about there, having three stope-bearing lodes in the 10*l*, and sides, tin, copper, and silver-lead. They are brought up, an open cutting of about 70 fathoms from the south-eastern boundary of the seat, and will very soon intersect one of their rich lodes. The intention is then to drive west on the course of the lode, and in a few months lodes of 20 fathoms could be obtained, but valuable mineral is expected to be got all the way. It is the intention also to continue the driving of an adit level already carried in 60 fathoms, as it is supposed another 10 fathoms will bring it home upon what is known as the Dreamer's lode, and by still carrying it further north will intersect other valuable lodes, and gain backs of 50 fathoms upon them, thereby rendering machinery unnecessary. The ore to be obtained is supposed to be very rich. An improvement has taken place in the quality of the ore raised at the Prince of Wales Mine, silver beginning to show itself in the produce. It is also reported that the old Silver Valley Mine (whose lodes are unworked in the Lady Ashburton) is about to be started again.

TERRA (Tin) is one of the greatest successes ever discovered in Cornwall. The tin is found in the elan up to the surface, and improving in depth. The whole of the stuff is being quarried and stamped out. The yield of tin is extraordinary. They promise to sell 5 tons of tin within a fortnight. If so, it will astonish the property of some of our oldest tin mines in Cornwall.

LEEDS AND ST. AUBYN.—This mine is likely to take a good position amongst the tin mines of Cornwall. It is being worked with vigour, and in a few days some very important points will be reached. From two lodes the present adventurers have sold 50,000*l*. worth of tin, and in a short time these lodes will be profitably worked again. The shares are at a low price, and in a small number, and it is not improbable they will see a very different quotation. Mr. F. R. Wilson, of 20, St. Helen's-place, has been appointed secretary, and a considerable interest in the mine has been acquired for his friends.

PIEL HEMATITE IRON COMPANY.—In a concern like the one projected the risk is *nil*. Bessemer pig-iron can only be made from hematite ores, and these are only thinly distributed throughout Great Britain, the Furness district may be said to possess the main, indeed almost exclusive, portion of this deposit—witness the great Barrow establishment, with 11 furnaces going, and consuming some 9000 tons of hematite ore weekly. The district, however, produces some 20,000 tons per week, a good part of which is sent into South Wales and other places, which could be used in the locality; and I will guarantee that upon every ton of hematite pig-iron made by the Piel Company at present prices a profit of 10*l*. to 12*l*. 6*s*. per ton would result, were the furnaces now at work. The demand for Bessemer pig-iron since the expiration of licence (as I had always predicted) has increased enormously, and must continue to do so.

EAST LOVELL.—According to the report of one of the most eminent practical authorities in Cornwall, who inspected this mine on Wednesday, the engine-shaft is sunk to the 80, and the level driven west about 13 fms. This lode has been worth from 20*l*. to 40*l*. per fathom, but in the present end it is not looking so well, being worth 10*l*. per fathom and from its appearance he thinks it will further decline in value shortly. The winze is not being sunk below this point. Those familiar with the previous history of this mine are enquiring the reason that neither the winze nor the shaft is being sunk below the 80 fm. level. It is argued that if at least neither of these points are continued the present large extraction of ore cannot be long maintained.

PRICES OF MATERIALS.

As charged at the GREAT WHEAL VOR MINES during the following months:—

Description.	Jan.	Feb.	March.
Coals, common	12 <i>l</i> . 0 <i>s</i> .	12 <i>l</i> . 0 <i>s</i> .	12 <i>l</i> . 0 <i>s</i> .
Ditto, best	18 <i>l</i> . 8 <i>s</i> . 4 <i>d</i> .	18 <i>l</i> . 8 <i>s</i> . 4 <i>d</i> .	18 <i>l</i> . 8 <i>s</i> .
Iron, common	9 <i>l</i> .	9 <i>l</i> .	9 <i>l</i> .
Ditto, best	11 <i>l</i> .	11 <i>l</i> .	11 <i>l</i> .
Steel, cast and blister	45 <i>l</i> .	45 <i>l</i> .	45 <i>l</i> .
Nails, 5 and 6 <i>l</i> . patent	17 <i>l</i> .	17 <i>l</i> .	17 <i>l</i> .
Tallow	50 <i>l</i> .	49 <i>l</i> .	49 <i>l</i> .
Grease	9 <i>l</i> .	—	9 <i>l</i> .
Oil, olive	5 <i>l</i> .	—	5 <i>l</i> .
Candles	per doz.	5 <i>l</i> .	5 <i>l</i> .
Hilts, pick	2 <i>l</i> .	3 <i>l</i> .	3 <i>l</i> .
Powder	per 100 lbs.	33 <i>l</i> .	33 <i>l</i> .
Leather, band	per lb.	2 <i>l</i> .	—
Ditto, butt	1 <i>l</i> .	1 <i>l</i> .	1 <i>l</i> .
White yarn	0 <i>5</i> 1 <i>l</i> .	0 <i>5</i> 1 <i>l</i> .	0 <i>5</i> 1 <i>l</i> .
Hemp	0 <i>5</i> .	0 <i>5</i> .	0 <i>5</i> .
Timber, Norway	per 50 feet	34 <i>l</i> .	34 <i>l</i> .
Ditto, pine	per foot	1 <i>l</i> .	1 <i>l</i> .
Ditto, oak	2 <i>l</i> .	2 <i>l</i> .	2 <i>l</i> .
Ditto, Baltic	1 <i>l</i> .	1 <i>l</i> .	1 <i>l</i> .
Ditto, birch and elm	2 <i>l</i> .	2 <i>l</i> .	2 <i>l</i> .
Ditto, hawthorn	—	0 <i>2</i> 1 <i>l</i> .	2 <i>l</i> .
Ditto, Dantie	—	—	1 <i>l</i> .
Ditto, pitch pine	1 <i>l</i> .	1 <i>l</i> .	1 <i>l</i> .
Rope	per cwt.	42 <i>l</i> .	42 <i>l</i> .
Stampheads, Longshanks	8 <i>l</i> .	—	—
Cartridges	per 100	34 <i>l</i> .	34 <i>l</i> .
Safety fuse	per coll	0 <i>6</i> .	0 <i>6</i> .
Wire rope	per cwt.	60 <i>l</i> .	—

CORNISH MINE SHARE MARKET.—A comparatively quiet week has been experienced in the Cornish Mine Share Market, and, as is generally the case whenever business through any cause assumes a restrictive tendency, prices of most of the ruling stocks are quoted a shade easier. The tin market also does not appear quite so firm as it was a week ago.—West Briton

The Bank of England return for the week ending on Wednesday, evening showed in the ISSUE DEPARTMENT an increase in the "notes issued" of 218,695*l*. which is represented by a corresponding increase in the coin and bullion on the other side of the account. In the BANKING DEPARTMENT there was an increase in the "public deposits" of 450,571*l*. in the "other deposits" of 1,916,457*l*. and in the "rest" of 17,123*l*. together, 1,743,151*l*. and a decrease in the "seven day and other bills" of 23,942*l*.—1,719,209*l*. On the other side of the account there was a decrease in the "Government securities" of 1296*l*. and an increase in the "other securities" of 1,195,936*l*.—1,194,640*l*, leaving a total increase in the reserve of 524,589*l*.

HOLLOWAY'S OINTMENT AND PILLS—PIMPLES, BOILS, CARBUNCLES, &c.—These maladies arise from some obstruction to the free circulation of the blood through the blood-vessels or lymph through the capillaries, and the only rational mode of cure consists in removing the local impediment, at the same time that any impurity engendered by the stoppage should be filtered from the blood. Holloway's Ointment applied to the parts effects the first, his Pills accomplish the latter object. The inflamed skin derives softness, coolness, and ease from the application of this unguent, which gradually penetrates to the affected tissues, arrests inflammation, assuages irritation, soon restores the circulation and its channels to a healthy condition, and spares the sufferer most serious diseases and unnecessary suffering.

FOREIGN MINES.

ALAMILLOS.—June 8: In the 5th level, east of San Rafael shaft, there is a very good shoot of ore, yielding 2 tons per fathom. In the 5th level, west of this shaft, the lode is divided into branches, and contains good stones of lead. The lode in the 4th level, east of La Magdalena shaft, is larger and easier for driving than for some time past. In the 5th level, east of La Magdalena shaft, the ground is very hard, and the lode small. In the 6th level, east of Taylor's engine-shaft, the lode is open, and letting out much water, and is of a very kindly appearance. The lode in the 6th level, west of Taylor's engine-shaft, produces occasional stones of ore. The 5th level, west of San Andriano shaft, is opening a good length of valuable tribute ground, lode yielding 1*1/2* ton per fathom. The 4th level, west of the same, is quite unproductive. The lode in the 2d level, west of Cox's shaft, is again improving, and now yields 1 ton per fathom. The 2d level, east of San Victor shaft, is being driven to meet the last-named end, and is opening ore ground very fast; the lode yields 1*1/2* ton per fathom. In the 3d level, east of San Victor cross-cut, the lode is greatly disarranged. The lode in the 3d level, east of San Victor cross-cut, is like the last named in contact with the main slide. The 3d level, west of the same cross-cut, will soon get under a point over which there is a fine lode. In the 2d level, west of San Victor shaft, the lode is large, yielding 1*1/2* ton per fathom. The 2d level, east of San Carlos shaft, is laying open a very good run of ore ground, the lode here produces 1*1/2* ton per fathom. We have commenced driving the 2d level, west of San Carlos shaft, in which the lode has a promising appearance, and yields 1*1/2* ton per fathom. In the 3d level, east of Crosby's shaft, we have met with a slide. In the 3d level, west of Crosby's cross-cut, the lode is very small and unproductive. The lode in the 2d level, west of Swaffield's shaft, is producing 1*1/2* ton per fathom. In the 2d level, west of the same, the lode although not so good as it was, is opening fairly productive tribute ground, and is worth 1*1/2* ton per fathom. Shotts and Winzes: In the 2d level, east of San Victor shaft, the lode is split into branches, and the men are making moderate progress. In Henry's shaft, under the 2d level, the lode is split into branches, and is yielding 1*1/2* ton per fathom. San Enrique shaft, under the 4th level, is of the same description. San Yalo shaft, under the 3d level, is also of the lode, and is being sunk with good dispatch. Victor's winze, below the 1st level, is in old works, with good branches of lead standing at the side of them. Addis's shaft is deep enough for the 2d level, and the men are put to cross-cut to the lode. The tribute department yielded the full complement of mineral in the past month, and the stope remains without any unusual variation. The surface works are going on regularly, and the machinery is in excellent condition. We estimate the raisings for June at 275 tons.

FORTUNA.—June 8: Canada Incosa: In the 120 cross-cut north the ground is exceedingly hard for driving. The men are getting on badly with the 110, west of O'Shea's shaft. In the 110, east of O'Shea's shaft, the lode is small and unproductive, and the ground hard for driving. In the 100, west of Henry's shaft, the lode is small, but looking more promising that it has been, yielding 3*l*. ton per fathom. In the 90, west of Judd's shaft, the lode is small and unproductive. The lode in the 80, west of Judd's shaft, being small and poor the driving is suspended. The 80 cross-cut, south of Henry's shaft, is being driven with moderate speed. The lode in the 50, east of San Pedro shaft, contains good stones of lead, and yields 1*1/2* ton per fathom. In the 90, east of Taylor's engine-shaft, under the 6th level, the men are making moderate progress. In Henry's shaft, under the 2d level, the lode is split into branches, and is yielding 1*1/2* ton per fathom. San Enrique shaft, under the 4th level, is of the same description. San Yalo shaft, under the 3d level, is also of the lode, and is being sunk with good dispatch. Victor's winze, below the 1st level, is in old works, with good branches of lead standing at the side of them. Addis's shaft is deep enough for the 2d level, and the men are put to cross-cut to the lode. The tribute department yielded the full complement of mineral in the past month, and the stope remains without any unusual variation. The surface works are going on regularly, and the machinery is in excellent condition. We estimate the raisings for June at 275 tons.

SHAFTS AND WINZES: In the 2d level, east of Crosby's shaft, the lode is improved, and open good tribute ground, worth 1*1/2* ton per fathom. In the 80, east of ditto, the lode is small, hard, and poor. The 70, east of Carro's shaft, is opening moderate tribute ground; the lode is worth 1 ton per fathom. Shotts and Winzes: In San Pedro shaft, under the 50, the men are getting on well with the sinking. Good progress has been made during the past month in Santo Tomás shaft, below the 55. Segura's winze is going down well; the lode is small at present, yielding 3*l*. ton per fathom. Los Salidos Mine: In the 110, west of Morris's engine-shaft, the lode is small, and the ground hard for driving. In the 100, west of Bueno Amigos shaft, the lode is compact, and opening good tribute ground, worth 2 tons per fathom. In the 90, west of the same, the ground is hard for driving, and the lode is small and compact, yielding 1*1/2* ton per fathom. The lode in the 75, west of San Carlos shaft, is again improving, although still very small, and yields 3*l*. ton per fathom. In the 110, east of Morris's engine-shaft, the lode contains stones of lead, but not sufficient to attach a value to. The 100 fathom level end was very good until a few days since, when it came in contact with the cross-course, and it will, doubtless, improve again. The lode in the 90, east of San Pablo shaft, yields 3 tons per fathom; this driving, although not quite so good as it was, continues to open out a rich piece of ore ground. In the 75, east of San Miguel shaft, the lode is cut off by a cross-course, and remains unproductive. The lode in the 25, east of Palgrave's shaft, and in the 25, west of ditto, produces 1 ton per fathom. In these ends the lode is small, compact, and very regular, and likely to give us a good length of ore ground. Shotts and Winzes: The sinking of Bueno Amigos shaft, under the 100, has been interrupted by the men giving up their bargain in the middle of the month; the lode yields 1 ton per fathom. Salina's winze is deep enough for the 95, and will be holed shortly; it contains a lode worth 1*1/2* ton per fathom. In Nieto's winze, below the 75, the lode is unproductive. Topotes winze, under the 95, is going down in a very kindly lode, yielding 1*1/2* ton per fathom. The weekly weighings of ore were kept up very regularly in the past month, and the stope are looking much as usual at present, enabling us to estimate the raisings for June at 350 tons. The machinery is in good working order, and the surface operations go on very regularly.

LINARES.—June 8: West of Engine-Shaft: In the 85, west of Warne's engine-shaft, the lode is disarranged, containing occasional stones of lead, but of no value. The 75, west of Crosby's engine-shaft, has passed through a strong cross-joint, which left the lode very poor. In the 65 west of Francisco shaft, and in the 65 east of ditto, the lode yields 2 tons per fathom. These new ends are started from the bottom of No. 171 winze, and are likely to open a good length of ore ground in each direction. In the 55, west of San Francisco shaft, there is no improvement to notice. The lode in the 55, east of ditto, continues to improve, although still very small, and yields 3*l*. ton per fathom. Shotts and Winzes: In San Pedro shaft, under the 50, the men are getting on well with the sinking. Good progress has been made during the past month in Santo Tomás shaft, below the 55. Segura's winze is going down well; the lode is small at present, yielding 3*l*. ton per fathom. Los Salidos Mine: In the 110, west of Morris's engine-shaft, the lode is small, and the ground hard for driving. In the 100, west of Bueno Amigos shaft, the lode is compact, and opening good tribute ground, worth 2 tons per fathom. In the 90, west of the same, the ground is hard for driving, and the lode is small and compact, yielding 1*1/2* ton per fathom. The lode in the 75, west of San Carlos shaft, is again improving, although still very small, and yields 3*l*. ton per fathom. Shotts and Winzes: San Carlos shaft will be completed to the necessary depth for a 45 fm. level this month. Henry's shaft will be completed to the 32 fm. level. The men are making very good progress in Cox's shaft, under the 32 fm. level. Jurado's winze is being sunk through a very fine shoot of ore, yielding 2 tons per fathom. The stope produced the computed quantity of ore in the past month, and are looking moderately well at present. The surface works and machinery going on much as usual. We estimate the raisings for June at 275 tons.

SWEETLAND CREEK (Gold).—G. D. McLean, May 26: I received a telegram from you on Saturday last asking the reason of the small profit last run. I wrote you some time since that everything had been neglected by the old company that could be left undone, in expectancy of the sale. They had stopped the main tunnel, neglected to repair sluices and put in under currents on the creek, that were much needed; let the supply of blocks run short, left the grizzly bars un-replaced, and the granite in a condition requiring several hundred dollars expense to place

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—E. Mumford, June 15: There is an improvement in the No. 2 adit, and I feel certain that I shall be able to report a further improvement in my next. The stop in the back of this level is worth full 2 tons of lead ore per fathom, and the stop in the bottom of the 10 produces 1 ton of lead ore per fathom, and improves.

ASHETON.—W. T. Harris, June 15: Lindow's engine-shaft is now 21 fms. deep; the ground is the same as for some time past. The lode in the deep adit south contains some good stones of lead, with a very promising appearance for an improvement; a good deal of water issues from the forebreast. The stop in the back of this level yields about 1½ ton of lead per fathom, and the ground is easy of progress. The communication of the engine-shaft with this level will enable operations to be carried on with greater facility, as at present the ventilation is not good. The lode in South Cliff level is large, and contains spar of an encouraging character, but poor for lead. Gundry's shaft, sinking on the east and west lodes, is 7½ fms. deep; the rock contains strings of spar, spotted with lead, and good progress is being made, but the water increases as the depth is reached. Should it become too quick to be kept with barrels we purpose erecting the small engine we have now on the mine. The new shaft south of engine-shaft is down 4 fathoms, but requires timbering; ground favourable for progress. Operations at surface progressing as usual. The boiler from Carnarvon will reach the mine to-day; its delivery has been delayed a week, owing to an accident on the road.

BALLACORKISH.—J. T. Treuren, June 11: In the engine-shaft, sinking below the 24 fm. level, the ground is looking much the same as when last reported; the average sinking is about 2 or 2½ fm. per week. In the end driving north of the engine-shaft, in the 12 fm. level below the adit, the ground is still of the same favourable character as for some time past, and the men are making good progress in driving. In the end driving north of the engine-shaft, in the adit level, the lode is split up, in consequence of coming in contact with greenstone. The end is being driven very nearly in the same direction as before we intersected the greenstone, between two branches, one on the west and another on the east side of the level. These branches are composed principally of friable quartz and prian, but I do not see any lead or blonde in either of them. The men are making pretty good progress in driving. I have put on two additional hands, in order to push on the driving of this level in the direction of King's lode. There is a little water coming from the ground in the east side of the level, which angers us. All other operations are progressing favourably. We are getting on with the dressing of the ores as fast as circumstances will admit, and I hope we shall soon be able to get around a small parcel of ore for the market.

BLAEN CAELAN.—J. Evans, June 16: The lode in the 25, east of the shaft, still keeps off to the north, and is much the same in character as when last reported on. The cross-cut north from this level, towards the new lode we found at surface, has been extended nearly 7 fathoms, and we shall continue this cross-cut north until we intersect it at this depth; so far as I can judge from the underlie in the trial pit at surface it will be about 12 fathoms extra to drive. We have capital ground in the main adit, but no sign of the lode yet. The "Little Wonder" continued to work well after you left yesterday, and I hope that the water will be out of the 10 fm. level in a week.

BRONFLOYD.—T. Kemp, June 15: No. 3 Shaft, North Lode: We are driving the 26, west of shaft, in a very hard ground, without any change. The western stop in the back of the 45 is still looking well, and is yielding 3½ to 4 tons of lead ore per cubic fathom. The stop under the 34 is yielding 3 tons of lead ore per cubic fathom. The stop under the 24 is yielding about 1 ton of ore per cubic fathom. The tribute pitch in the back of the 24 is producing a good mixture of lead ore, and the men are getting fair wages. The cross-cut south from the 12 west is being continued by four men, without any change to notice. No. 1 Shaft: We shall get the pumps from the foundry this week, and resume the sinking of this shaft; and next week we shall set the sinking of the shaft over the new discovery in the western part of the mine.

BRYNPOSTIG.—J. Kitto, June 16: The lode in the bottom, or 48 fm. level, still continues to improve, as well as the winze sinking below the 36, in advance of 48 fm. level end, and each are worth at least 1½ ton of lead ore per fathom: the prospects were never so encouraging as at the present time. We have sampled to-day 20 tons of lead and 20 tons of blonde, and I herewith enclose notices of same.

BWA'DRAN CONSOLS.—R. Northey, June 13: The lode in the 55 is about 2 feet wide, composed of killas, quartz, blonde, and spots of lead ore, and letting out more water than usual. The 10 has been holed to the stopes, which has ventilated the same, and given greater facilities for working; the said stopes are looking very well, all the other stopes are without any change. We have cut the lode in the cross-cut north near the Rheddudd; it is about 1 foot wide at the point of intersection, and of a very promising character; we have started a level east on its course. All the machinery is working well as usual, but the water has become scarce for dressing; we are, however, using every exertion in that department, preparing for the next sampling.

BWLCH CONSOLS.—R. Northey, June 14: The lode in the 60 is without change since I last reported; there is a large quantity of water issuing from the forebreast. The stopes in the back of the 60 and 70 are improving, now worth 1 ton per fathom. The stopes in the back of the 50, 40, and 30 are worth 17 cwt. per fathom. We have cut another branch in the cross-cut driving north at the 40, about 4 fm. wide, composed of quartz, killas, and lead, this augurs well for the prospects ahead. Nothing new to report in any of the other bargains. We are doing all in our power towards dressing for the next sampling, but the water is very scarce.

CAR GYNO.—June 15: South Lode: In the 50, west of shaft, we are driving a cross-cut south, and have cut into the lode 6 ft., but are not yet through it; about 4 ft. of this was through a good bunch of blonde and spots of lead ore; the end at present is not so good, and I think we shall soon cut the south wall. We have commenced sinking a winze below the adit level on this lode, which is looking exceedingly well, worth 2 tons of blonde per fathom, and about 5 or 6 cwt. of lead; when this winze is communicated to the 20 we shall be able to raise great quantities of blonde monthly.—North Lode: In the 50 west we are cutting through the lode. I am glad to inform you that this end is looking better than it has for some time past, worth 15 cwt. of lead ore per fathom, and not yet reached the north wall. No. 1 winze, below the 40, has been idle for the last week, as I had no men to put into it, but yesterday I put six men to sink it; the lode is improving, and I hope to be able to report something good in this bargain soon. In the No. 2 winze, below the 40, we have met with a nice bunch of ore, worth at present 30 cwt. of lead ore per fathom, and promises further improvement. The water is quick, and progress rather slow; but I expect the 50 fm. level end will drain this place soon, as we have an increase of water in the forebreast. The stopes in the back of the 40 and bottom of the 30 fm. levels are producing about 10 cwt. of lead ore per fathom. In the 30, east of shaft, we have cut into soft ground, and the lode is small and poor; set at 21 per fathom, for the month out. I do not expect this ground will continue long as it is. We have had new stiles to our crusher, and have put in new 30-in. rolls and spur-wheels, and it is now in first-class working order; we commenced crushing on Monday last, and it works well. The dressing is being pushed on as fast as possible, and I expect the new stone-breaker on the mine this week, when we shall lose no time in erecting it and getting it to work.

CARADON CONSOLS.—S. Bennets, June 14: The lode has made its appearance in the east end of the shaft, by the cross-course, it is somewhat disordered, 3 to 4 ft. wide, with spots of ore in it. In the 90 west it is 2 ft. wide, producing 1½ ton of ore per fathom. East in the same level it is 3 ft. wide, saving work. The No. 2 lode, in the winze below the 78 fm. level, is again showing spots of ore, but not to value. The same lode in the east end is producing 1 ton of ore per fathom.

CARDIGAN BAY CONSOLS.—C. Williams, June 16: Pensarn: We are progressing very favourably with the driving to intersect the ore part of the lode, which I expect to do in a very few days, of which you shall be apprised immediately.—Eastern Adit: No change whatever in this level since my last.—North Adit: The ground in this level is composed of slate, spar, mundic, and ribs of ore, but not sufficient of the latter to set a value upon them.—Brynnarion Old Adit: The ground in this bargain is consisting of slate, spar, blonde, and impregnated throughout with lead and copper ores, and if I am not greatly mistaken we shall cut into a good lode here in a few days.—Boundary Shaft: We have completed the horse-whim over this shaft, which is working admirably well. I expect to complete the crusher this month.

TALIESIN, June 16.—Charles Williams: Boundary Shaft: In reference to this shaft, and the depth to which the same would have to be sunk to intersect the boundary adit, mentioned in your letter of the 10th of June, I beg to explain that when I stated to Mr. Robins in my report to him about September last, I had not the necessary access to the ground to properly calculate heights and distances, and my statements to him were founded upon measurements made by Capt. Lloyd on behalf of the Dolddreth Mining Company up to the boundary of their property, and that the calculations I made were only upwards from that point. In those calculations, it is now proved there was no error, but in that of Capt. Lloyd, for the remaining portion, instead of being a depth to sink of 10 fms., as stated by him, there actually remained 23 fms. 4 ft. 7 in., making a total depth of 29 fms. 4 ft. 7 in. all. We are now down about 23 fms. If you and co-directors will consider the additional amount of ore ground this shaft, when completed, will open up in the extra 10 fms. sinking, I think you will feel there is no cause to complain of the extra time taken in communicating the shaft with the boundary adit. The length of ore ground to the east of the boundary shaft being 120 fms., and the extra depth of 10 fms., will give 1200 cubic fathoms; therefore, at the low estimate of 17t. per fathom, will give the company a return of 20,400£ additional.—Pensarn Shaft: This shaft is now down to its required depth, 15 fms. 2 ft. from surface, and we are now driving to intersect the lode mentioned in my report. This lode I fully expect to cut in a very few days, of which you shall be apprised immediately.—Sampling: I am now in a position to quickly sample about 50 tons, and I hope soon to be able to double that quantity.

CEFN RHYWYNO.—J. Paull, June 14: The lode in the 92 west has considerably improved, now being 5 ft. wide, and worth 2 tons of lead ore per fathom—a very fine-looking lode. In the stopes over this level, east of the engine-shaft, the lode varies from 3 to 5 feet, which will produce on an average 1 ton of lead ore per fathom. The lode in the 80 west is 3 ft. wide, interspersed throughout with lead ore, worth 10 cwt. per fathom. The stopes over this level are yielding their usual quantity of ore. In the 56, going east, the lode is large, showing spots of ore, and of a promising character. The 20 east is suspended for a while, but will be resumed again shortly. Surface operations are going on regularly, and fair progress is being made towards another sampling.

CHIVERTON VALLEY.—J. Jalef, J. Trevillion, June 16: Retallack's shaftmen are making fair progress in sinking below the 85 fm. level. In the 85 east the lode is worth 8 cwt. of lead per fathom. The 85 west is at present disordered by the slide, up to it was worth 16 cwt. of lead per fathom; we expect it will in a few days improve. The winze sinking below the 75 is worth 16 cwt. of lead per fathom. In the 65 end west the lode is 2 ft. wide, with a promising appearance. Tregoning's shaftmen are sinking below the 49 fm. level, in a good looking channel of ground, which is favourable for sinking. The stopes are producing the usual quantities of ore.

CRENNER AND WHEAL ABRAHAM UNITED.—Wm. Kitto: The water is drained to the 170—that is, 20 fathoms in little more than two months. The engines are of ample power to drain out the water as fast as the pitwork can be put in its place. Nearly all the shafts throughout are made available for drawing purposes to the 150 and 160 fm. levels, and the levels cleared and repaired to those points. We are much pleased with the promising character of the lode for tin throughout the 160 fm. level. Having assayed several samples

of good tin-stuff, we shall send large quantities to surface, which will speak for itself. We shall not be able to draw any stuff to surface for the next fortnight. The carpenters and engineers are engaged altering the middle steam whim-engine, cage, and shaft-tackle at Blewett's, Vivian's, and middle sump-shafts, in order to work steel wire-ropes, which will effect a great saving, or we should have had to purchase several tons of new chain. We have also put up new shaft-tackle and pully-stands at Gard's shaft, in order to draw the stuff with Willows's steam whim-engine. There are also two more boilers added to the middle engine, which will provide sufficient steam to draw the water to the bottom with economy. The walls of the dry are nearly finished; we are also making additions to our dressing-floors department, as our returns of tin and copper will greatly increase as soon as our drawing appliances are completed. Our last sale of copper realised over 1065£. We are exploring the ground north and south from the old lode, by driving three cross-cuts—first, in the 60, north from Gard's shaft, by two men and two boys; second, in the 110, north from the middle sump-shaft, by six men; third, in the 120, south from Wool's shaft, by six men. These are important objects, and there are four ends driving on the course of the old lode of great promise, by 14 men and six boys.

DEEP LEVEL.—June 14: The 120 east, on the new lode, is not looking quite so well as it has been. In the present forebreast the lode is about 12 in. wide, composed of clay, and producing occasional good stones of lead ore. The lode in the 120 west is about 2 feet wide in the bottom of the level, and about 3 feet wide in the roof, composed of clay, and yielding good solid lumps of lead ore—altogether a very promising lode. The 80 cross-cut is being driven south from Trustee's shaft, to intersect the new vein; the ground is composed of limestone and clay. In last week's report it was stated that we had dilled the 174 yard level west from Pant-y-Go shaft, on the Pant-y-Go vein, and started to drive a cross-cut south from that level, to come under Trustee's shaft, and then on to cut the new vein. We have six men driving this cross-cut. There is nothing new in any other part since reported on last.

DEVON AND CORNWALL UNITED.—E. James, June 15: The lode in the 100, east of the adit level, west of engine-shaft, is improving, being now 3 ft. wide, composed of mundic, capel, quartz, and stones of copper ore; it is as fine a lode as can be seen, and in my opinion we shall meet with a good shoot of ore here shortly. In the adit end, west of this shaft, there are two branches, one on the north the other on the south wall, with a horse of killas between; these branches will unite after driving a short distance further, and at the point of intersection no doubt a great improvement will take place; I may remark that we have 45 fms. of backs at this point. The lode in the 22, driving west of this shaft, is small, and at present unproductive; it is, however, strongly mineralised, and the strata congenital for the production of copper ore.—Tribute: A pitch has been set in the 22 and bottom of the 10 to six men, at 13s. 4d. in 17, the tributaries to pay all cost. There is now on the quay ready for sale copper ore for the market.

DOLWEN.—J. Davis, June 15: Settings for June: The adit level to drive on the course of the lode, at 61. 10s. per fathom; the ground is harder than it was, and the lode is strong and regular, with a bearing of 10° north of east; it produces good stones of lead ore, and from present indications I expect further improvement here soon.—New Shaft: I could not persuade the men to accept your offer of a bargain through to the depth of the adit in one sum; so, rather than let the work stop, I set the sinking for a month at 11s. per fathom. They sunk 2 fms. 5 ft. 4 in. last month; the ground is coming strong, and there is a branch of the lode in the shaft which produces small ribs of ore.

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its character, and the water still increasing; we believe the lode cannot be far distant. In the rise in the 100 east the lode produces stones of tin, ground favourable. —Cobbler's Shaft: In the 120 west the lode is at present unproductive. North, in the 90 east, the lode produces good stones of tin, and looks well for improvement. In the 90 west the lode is still unproductive. In the 80 east the lode is worth 10*l.* per fathom. In the 80 west the lode is worth 10*l.* per fathom. In the 70 west we are not yet through the cross-course. In the 60 east the lode is worth 20*l.* per fathom. In the 55 west the lode is worth 20*l.* per fathom. In the 50 west the lode is worth 15*l.* per fathom. In the 55 east the lode is worth 10*l.* per fathom. In the 47 east the lode is worth 10*l.* per fathom; but we believe there is more lode further north, and a still cross-cutting.

PENHALIS.—S. Bennett, W. Higgins, June 11: There is not much change in the winze below the 70, the lode being still small, and tolerably good work. The stop in the back of the 70 is worth 15*l.* per fathom; and the rise in the 60 west, 15*l.* per fathom. The main lode has again made its appearance in the 60 east, in junction with the downward lode, and is producing some good stones of tin on its south wall. The rise in the back of the 50 east is worth 16*l.* to 18*l.* per fathom. The stop in the back of the 50 west is worth 12*l.* to 15*l.* per fathom. The lode in the 42, 6*l.* per fathom. The winze below the 30. The 17, west of Sarah's shaft, is worth 7*l.* to 8*l.* per fathom, and the rise above the 10 is worth 12*l.* per fathom. At the flat-shaft there is a stop above the 10, worth 12*l.* per fathom.

PENHALIS WHEAL VOR.—W. H. Martin, June 15: The engine-shaft men are engaged cutting plat at the 120; we are pushing on this work with all dispatch so as to commence the sinking below this level as early as possible. The lode in the 120 west presents a very kindly appearance, and is of much the same composition as last advised. In the 120 east and the lode has changed, and contains a great deal more spar, and letting out water freely; I am looking forward from this change for an improvement in the lode. We have four men employed excavating for the foundation of the whim engine-house, which we expect by the latter part of next week to be able to set to build.

PENRHYN.—Mark Whitford, June 15: The shaftmen are engaged in cutting down the engine-shaft, putting in timber, and preparing for the pitwork. In the adit end, on the north and south lode, the ground is very much harder than it has been, but I think it is only a bar; this has retarded our progress; the lode is about 1 ft. wide, producing some good stones of silver-lead ore, and from the appearance of the lode we may expect a change shortly for the better. In the winze sinking in the bottom of this level the lode is 1 ft. wide, with good stones of silver-lead ore, and showing a better appearance than it has before, and the ground not so hard; in my opinion when we get under this bed of ground we shall have a very productive lode. The engineers have the bob up, and hope to get in the cylinder to-morrow, and no time will be lost so as to be ready to work as early as possible. The masons are urging on with the stack, that all the work may be ready together.

PERRAN CONSOLS.—J. Nance, June 15: Flat-rod Shaft: The shaftmen are making good progress in sinking below the 20, which is down about 5 fathoms below the said level; the lode is 3 ft. wide, producing a little tin, and the appearances are looking better. The ground in the 20 fm. level, west of the shaft, is getting a little harder for driving; the present end is extended 4 ft. west of cross-course, and is 21 fms. 3 ft. from shaft; the lode here is improving in size, and beginning to show signs of a better character: it is now 1*1/2* ft. wide, with 3*l.* per fathom. In No. 1 stop, in the back of this level, the lode is 3 ft. wide, worth 8*l.* per fathom. In No. 2 stop the lode is 1*1/2* ft. wide, worth 4*l.* per fm. In this level, driving east of shaft, no change has taken place during the week, the lode being 1*1/2* ft. wide, worth 2*l.* per fathom. In the 10 fm. level, west of shaft, the lode is 2 ft. wide, producing stamping work. Since our last report we have taken down the whin that was on the western shaft, and removed it to the Wheal Widdon adit shaft, and shall be in readiness to commence clearing the shaft to-morrow.

PERKINS BEACH.—E. Davies, June 15: In the deep adit the south cross-cut has continued very hard, but is now better to blast; the end is letting out water freely, and is good for lead ore. We think we are approaching some vein, although the great spar lode must be a few fathoms ahead of us, when that is intersected the backs will be at least 100 fathoms, which will increase as opened out upon eastward. Walker's vein has now so improved east that we have gone back north, and are driving east upon Gwilliam's vein, which will soon form a junction with it; this will enable us to drop the ore stuff to deep adit. I am of opinion that the run of ore goes westward, on Walker's vein, will be drained by unwatering the engine-shaft. Upon No. 1 caunter we shall continue to rise in ore ground, which promises well. During the last ten days I put two men to rise on cross vein east of the shaft, and am now pleased to report that it already yields good stones of ore in very congenial ground, and should this part open out well it will be new to middle adit. —Middle Adit: At its mouth there are several tons of ore waiting rain to be rough dressed, as in this drought the water has descended to the deep adit. —Preece's Ground: This ore has greatly improved since my last report, and is in speedy ground; the yield has again become satisfactory. The eastern drivage on footwall of Cross's lode is progressing well, with a good leading joint on it, and we occasionally meet with stones of ore, but Philpot's ore must still be ahead. It being determined to unwater the mine below the deep adit, we are busy putting the engine in order, and although unworked for seven years, I find it in a good state. I hope shortly to begin to pump.

PLYNLIMMON.—J. Paul, June 15: In the 12 fm. level driving, east of the engine-shaft, the lode is 4 ft. wide, carrying a fine solid branch of lead ore, producing quite 2 tons per fathom; this level is laying open valuable ore ground, the end is very wet, and has let down nearly all the water from the adit level, which shows there is an open productive lode between the two levels. The winze sinking below adit (down 6*l.* fms.), still goes down by the side of a rich lode, and is in advance of the 12 fm. level end about 12*l.* fms., indicating a fine piece of ore ground to be opened up between these two points, and when communicated we shall have ventilation to resume driving of the adit, which for the present is suspended, in a good ore lode. The four stopes now being worked give an average yield of 15 cwt. of lead ore per fathom, but much of the stuff broken is accumulating in the mine, owing to the increase of water at the 12 fm. level, which gives the present water-wheel nearly enough to do to pump alone. We are, however, pushing on as fast as possible with the pit for the new 50-foot pumping-wheel, which when erected will set the 40-foot wheel free for winding and crushing regularly, and thus enable us to work the mine upon a much more extensive scale than heretofore. On Monday next, samples of 50 tons of lead ore will be sent out, for sale on the 29th instant.

PRINCE OF WALES.—J. Gifford, W. Gifford, June 15: In the 77 east we are continuing our driving by side of the lode, which we hope to take down some time next week. In the 77 west the lode is 3*1/2* ft. wide, of a promising character, and at present will produce full 1 ton of copper ore per fathom, value 5*l.* In the 77 cross-cut south, the ground is favourable for driving, and as yet nothing more met with. In the 65 west the lode is 2*1/2* ft. wide, yielding occasional good stones of copper ore, but not enough to value. In the 55 west there is no change to notice. —No. 1, South Lode: In the 65 east we have cut through the lode, near the present end, where it is 1*1/2* ft. wide, principally capel. In the 55 west, on No. 2 north lode, we are driving by the side of it. Two stopes in the back of the 65 east, worth on an average 10*l.* per fathom. Two stopes in the back of the 65 west, worth on an average 8*l.* per fathom each. A stop in the bottom of the 55 east, worth 12*l.* per fathom. In the tribute department the men are getting good wages.

PRINCESS OF WALES.—Thos. Foote, G. Rickard, June 15: The sinking of Harris's engine-shaft is nearly completed to the 50 fm. level, and we shall commence in the early part of the coming week to cross-cut towards the great gossan lode, which we expect to intersect in about 12 ft. driving.

ROARING WATER.—H. Thomas, June 14: During the past month we have driven west on Grady's lode 1 fm. 4 ft. 1 in.; set to six men, 1 fathom, at 8*l.* ss. Also the wheeling, filling, and attendance to air pipes, at 2*l.* per month. The change now taking place leads me to expect before long a good improvement; the lode at present is principally composed of good looking spar, spar, &c., strongly impregnated with yellow and silver-grey ore. I am pleased with the general improved state of the lode, but our progress is necessarily slow, in consequence of being nearly overpowered with such a large quantity of water issuing from the end.

ROSEWELL HILL AND RANSOM UNITED.—J. Daniel, S. Uren, June 15: Standard Lode: The lode in the 110, driving east of Ransom shaft, is 1*1/2* ft. wide, and worth 4*l.* per fathom. The 100, driving east on the north part of the lode, is without change. The lode in the 90, driving east, is 9 in. wide, and producing spar work. The lode in the stop in the bottom of this level is 2 ft. wide, and worth 20*l.* per fathom. The lode in the 80, driving east, is 18 in. wide, yielding occasional stones of tin. The lode in the 60 east is 9 in. wide, and worth 7*l.* per fathom. We have commenced to drive the 30 fm. level east and east, by four men; the lode is 18 in. wide, worth 6*l.* per fathom—a kindly-looking lode. We have also set the 20 to drive east, by two men; the lode is 9 inches wide, and producing good stones of tin. No change to notice in either the 100 or 90 fm. level cross-cuts north since last reported. —Eastern Carbons: The lode in this carbona, stopping in the back of the 100, is 6 ft. wide, and worth 25*l.* per fathom. —Middle Carbons: This carbona, in the back of the 60, is worth 8*l.* per fathom. No further change.

SOUTH CONDURROW.—J. Vivian and Son, Wm. Williams, June 15: West Bassett Lode: From various causes little progress has been made in driving the 90 west of King's shaft since the last meeting; the lode in this level is about 3 ft. wide, with scarcely any underlie, consisting principally of flookan and soft spar, carrying a little tin, and is favourable for progress. We shall now push on this level as quickly as practicable towards Vivian's shaft (distant in the 51 fm. level, through a good sized lode, producing copper and tin, and of a highly favourable character for becoming increasingly productive in depth. We think we shall make valuable discoveries by driving the 93 under this run of ground. In the 51, east of Ty shaft, the lode is 1*1/2* ft. wide, principally gossan, and easy for driving in; this end is now about 50 fms. east of the shaft. The deep adit level east, now about 60 fms. east of Ty shaft, the lode has an average width of about 3 ft., yielding the throughout, which will pay for stowing, the cost of which will be covered by about 15*l.* per fathom. We are now sinking shafts from the surface to communicate with the last-named level, and thus afford the means for working the tin ground in this part of the mine, from which we are likely, looking to the future, to derive considerable benefit. We have sunk Vivian's shaft to the 61, and shall now drive the said level west under the favourable ground passed through in the 51, before alluded to, and cross-cut south to the tin lode, where we have about 12 fathoms to communicate, and which, when done, will afford ventilation and other advantages for working our western tin ground. —Tin Lode: In the 82 cross-cut south, west of King's shaft, we have been passing through a very hard tin capel, the whole of which produces tin, accompanied with copper and mudi, the price for driving being at present 22*l.* per fm. The length of this cross-cut is now 21 fathoms; and, as there is no appearance of granite, and the water is still coming from the south, it seems evident that the main lode of the tin is still before us. This cross-cut is draining all the upper levels for a considerable length. In the 71, west of cross-cut, west of Park Coose shaft, we are carrying about 7 ft. of the lode, which is worth about 15*l.* per fm., and we are gauging south, thinking there may be a better part of the lode in that direction. We are sinking a winze under the last-named level, which will reach the 82 at about 6 fms. west of the cross-cut. The part of the lode in this winze is 6 ft. wide, and worth about 30*l.* per fm. We have commenced extending the 71 cross-cut further south, believing there is more lode in that direction. In the 61, west of King's shaft, the lode has improved within the last day or two, and is now 3 ft. wide, and worth about 50*l.* in the rise over the last-named level, which is just under the perpendicular of Vivian's shaft, the lode is worth about 25*l.* per fathom. In the winze under the

same level, 24 fms. further east, and now down about 4 fms., the lode is 3*1/2* feet wide, worth about 20*l.* per fathom. We have commenced driving east on the north side of the 61 fathom level, west of King's shaft, where we have good branches of tin throughout a width of about 9 ft., and which appear to be parts of the tin lode; this drivage, for the width of about 9 ft., is worth about 30*l.* per fm. In the 51 fathom level, east of cross-cut, south from Vivian's shaft, the lode is 1*1/2* ft. wide, and worth about 7*l.* 10*l.* per fathom. We are sinking a winze under the 51 fm. level, west of King's shaft, on No. 1 north branch, where the lode is 2*1/2* ft. wide, and worth about 8*l.* per fathom. We are driving the 51 fathom level, east of cross-course, east of King's shaft, on north branches, recently discovered, which, although small, are of rich quality, and we think it likely that discoveries of value may be made in this part of the mine. We are driving a cross-cut, north from Vivian's shaft, at the 51 fm. level, to intersect No. 1 north branch, and a cross-cut south from the same shaft, at the 40 fathom level, with a view of ascertaining what south branches or lodes we may have. We are also driving a cross-cut north from the engine-shaft, at the 20 fm. level, to intersect Wood's lode, which at the adit level is for a considerable length the finest looking lode we have so near the surface, and the part we thus aim at exploring is parallel ground with the former rich courses of copper and recent courses of tin in Condurrow, or Pendavore United, and the best copper and tin ground which we have yet discovered in this mine. Wood's lode being at mid-way between the two localities referred to, and between parallel cross-courses. In conclusion, we have to remark that we have continued during the past four months to extend our dressing appliances, in order to avoid, as much as possible, any loss of tin in this operation, and our cost has thus been higher than would otherwise have been. We consider, however, that the mine was never in such a good position before; and, as we have a large area of profitable tin ground already laid open, we can calculate on raising ample quantities to keep the stamps fully supplied, whilst the improvements which have recently taken place in some of our explorations lead us to hope that we shall in future be able to send up tinstone of a higher average produce, from which increasing profits will be derived, and dividends afforded.

SOUTH DARREN.—J. Boundy, W. H. Boundy, June 15: The lode in the 80 west is 2 ft. wide, and producing a strong mixture of lead and copper ore. The lode in the 70 west is 2*1/2* ft. wide, producing some good quality lead and copper ores, and presenting every appearance of opening up a good run of ore ground. The lode in the 60 west is 2 ft. wide, composed of killas, carbonate of lime, lead and copper ores, worth 9*l.* per fathom; this end is improving as we approach the ore ground to the west. There is no material alteration to report in any of the other bargains, including the stopes, throughout the mine. The machinery is in good working order, and the dressing going on regular. We shall sample this week 25 tons of silver-lead ore.

SOUTH MERLLYN.—June 15: We have no change to notice since our last report, all operations proceeding satisfactorily.

SOUTH ST. JUST.—The preliminary work at this mine is progressing most satisfactorily, the men have repaired the shafts and levels, and they are now in good order. At the guide shaft has been going two cores a day, and the water now below the 10. The drawing of the water below the 10 in the winze was commenced on Wednesday, and it was expected then to set the sinking yesterday (Friday). The whole of the operations at this mine will be carried on upon ore-bearing ground, the result of which is expected to be highly profitable.

SOUTH VAN.—J. Richards, June 15: We are making a little better progress in the sinking of the engine-shaft during the last few days. The excavating of the wheel-pit is finished, and the masons will commence to-morrow, and the water-course will be completed this week.

TAMAR VALLEY.—J. Goldsworthy, June 15: In the 37, driving south of Weston's engine-shaft, the lode is 3 ft. wide, of a promising character, and producing rich stones of silver-lead ore, with indications of an improvement, and good progress is being made. The lode in the 27 south will produce 6 cwt. of silver-lead ore per fathom. The tribute pitches are without change to notice since last reported.

TANKERVILLE.—A. Waters, June 15: Watson's shaft, sinking below the 92 fm. level, is down nearly 2 fms. The lode continues exceedingly rich for lead ore. The shaftmen are to-day squaring down the lode, previous to another sink in the cavity. It is almost impossible to see richer stuff than is being broken in the very bottom of the shaft. Everything is now in good order for pushing to the 104 uninterrupted, and, with twelve men in the shaft, we hope to reach that point in about six months from the present date. Brown's stope, in the roof of the 92, west of ladder winze, is in a rich course of ore. The lode in the back of the same level, east of winze, is also rich in ore. We have also resumed stopping the back of the 29, west of Brown's shaft, where the lode is worth from 12 to 15 tons of lead ore per fathom. Other places as usual. The two engines for winding, &c., are working splendidly.

TAN-Y-ALLT.—R. Evans, June 15: The following are the settings of the 4th inst., and the present state of the mine: —The engine-shaft sinking below the 94 fm. level, is open to 12 fms., at 2*1/2* per fathom for the month; the run of ore from the eastern end improves east that we have gone back north, and are driving east upon Gwilliam's vein, which will soon form a junction with it; this will enable us to drop the ore stuff to deep adit. I am of opinion that the run of ore goes westward, on Walker's vein, will be drained by unwatering the engine-shaft. Upon No. 1 caunter we shall continue to rise in ore ground, which promises well. During the last ten days I put two men to rise on cross vein east of the shaft, and am now pleased to report that it already yields good stones of ore in very congenial ground, and should this part open out well it will be new to middle adit. —Middle Adit: At its mouth there are several tons of ore waiting rain to be rough dressed, as in this drought the water has descended to the deep adit. —Preece's Ground: This ore has greatly improved since my last report, and is in speedy ground; the yield has again become satisfactory. The eastern drivage on footwall of Cross's lode is progressing well, with a good leading joint on it, and we occasionally meet with stones of ore, but Philpot's ore must still be ahead. It being determined to unwater the mine below the deep adit, we are busy putting the engine in order, and although unworked for seven years, I find it in a good state. I hope shortly to begin to pump.

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TERRAS.—J. Edwards, June 15: I am making good progress with the stamping department, and the amount of ore being produced is quite satisfactory, although we are working as yet but a few feet below the surface. As previously stated by me, far greater and more profitable results may be expected as depth is attained, and this property will prove by development second to no other mine in the county. I have now at work two hand boulders, and another nearly ready. I have also the kieles at work, and passing a portion of the tin through the last process of cleaning, which requires no burning, being free from muds.

TREREW.—June 15: The ground continues pretty good in the 32 fm. level south; we have not cut into the lode for the month. The wall appears to be still hard, and as we want to get on a little further as fast as possible, we defer cutting into it to save time. The shaft in the moors is quite dry, we only put the lander and kibble filter to sink when they are not drawing, just to prove if the water is gone down. We think we had better put more men to sink the shaft as fast as possible.

TREWETHIA.—Thomas Foote, June 15: We have nothing new to report this week; we are putting on everything as fast as we possibly can. The lode is still looking well at Ward's, and we have put as many men as we can to work, so as to open out this ground, and are fully persuaded that we shall have a good run of ground from the 73 to the 33 south. —We shall start another winze in the bottom of the 43 as soon as we can, now that the winze from the 33 to the 43 is holed. We have also holed the rise in the 73 to the 33, and have now commenced rising in the back of the 63; the rise we calculate to meet with the winze we purpose to sink as soon as we can in the 43. This will save the clearing and securing of the 33, as well as the hard and poor ground that we should have to drive after the level was cleared out, which would at least cost in labour and timber 11*l.* ss. If we get this communication through we can still drive from the winze a 5*l.*

VAN CONSOLS.—T. Corfield, June 15: The 30 end does not produce so much lead as reported last week, but the lode is very promising, and letting out water.

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WEST JEWELL.—J. Mayne, June 15: We have cleared and secured 2*1/2* fms.

in the 17, west of Freeman's, the lode looks well, and is still worth 14*l.* per fm. We shall at once commence to cut plat, and in about a week shall be in position to drive east and west and sink the shaft. No alteration in the lode at Sir Frederick's shaft since last reported. The tributaries are breaking their usual quantities of tin. The masons are going on rapidly with the building of the engine-house, and the greater part of the engine will be on the mine this week.

WEST PANT-Y-GO.—June 15: The ground in the 75 fathom level

shaft below the 120 to take skip-road. The 120 east is worth 8d. per fathom. The 110, east of Gooding's, is worth 25s. per fathom. The 100, east of Gooding's, is down 8 fms. below the 14 under adit, or 30 fms. from surface; sinking by six men, and going down favourably. At 4 fms. deeper, making 18 fms. below the 14, we propose again cross-cutting to the lode. We consider this will be quite deep enough for the most practicable development of the mine, as the 12 fms. perpendicular sinking will give about 14 fms. on the angle or dip of the lode. At the 14 six men are employed in each end driving east and west of cross-cut from Murchison's shaft. Both ways the lode is very large—4 to 5 fms. wide—and consequently only a part of it is seen in the driving. Occasionally good stones of lead ore are met with, and cross-cuts must soon be put out to prove the whole width of the lode.

PYNNIMMON MINE.—When the present company purchased this mine, about four months ago, the 12 under adit was poor. It improved soon afterwards to 1½ ton of lead ore per fathom, and has ever since been in a good course of ore, the present end being valued at full 2 tons per fathom. A winze is being sunk from the adit about 13 fms. ahead of the 12 end, by the side of a rich lode; while, as we have before stated, the adit has passed through a course of ore for 155 fms. in length, averaging 1 ton per fathom, and the present end worth 1½ ton per fathom. The shaft is sunk to the 24 under adit, but is full of water, and cannot be drained till the new 50-ft. (pumping) wheel is at work (in about three months). This level is a long way behind the 12 end, and when driven further to reach the course of ore in the level above will no doubt also become valuable. The ore ground discovered is unusually long, and from the size and fine character of the lode there is every prospect of its holding down to a great depth. In the last three months about 100 tons of lead ore has been broken, but owing to the inefficiency of the machinery until the new wheel is at work only 50 tons have been hauled and dressed, and this will be sampled on Monday. By the end of the year the returns will be considerably increased, and we believe good profits will then be made. A cheaper, more legitimate and safer investment in this class of property cannot at present be made.

VAN.—A special meeting of the shareholders has been convened for Tuesday, to determine as to the issue of 3000 new shares, to be allotted *pro rata* at 6d. 15s. to the existing shareholders. Doubtless the project will be carried, for the feeling is unanimous as to its desirability. Shortly after the inception of the present company the discoveries made proved in the most transparent manner that the capital, after payment for the mines of 2000*l.*, was inadequate to carry on the commercial working of the company. This may be better understood when it is stated that lead ores are paid for in the acceptances of the smelters, and at present the current bills amount to about 15,000*l.*, and before next year closes it is not too much to prognosticate much more than double that amount. The outlay for new steam-engines, and on capital account, has already amounted to over 15,000*l.*, and from recent discoveries, in order to return 1000 tons of lead per month, a further considerable outlay must be made, and this capital provided, the earnings of the mines will be released for distribution in dividends amongst the shareholders. This new issue is very properly regarded as a considerable bonus to the existing shareholders. Official advices have been received of the cutting of the lode in the 45, or bottom level, richer than anything seen, and is described as cutting into an almost solid mass of lead. The developments west and east indicate the opening up of rich new mines in both directions. It has been proved a necessity to make a railway to the main Cambrian line for the carriage of the ores from and materials to the mines; a separate company has been formed to carry this into effect, and it is expected to have the same completed in the autumn of the present year. The railway will open up a rich valley now badly served by road, and has every prospect of proving highly remunerative.

The GREAT WEST CHIVERTON directors have received a report from Capt. John Nancarrow, of Camborne, their superintending agent, which will be found amongst our Mining Correspondence, announcing important improvements.

TUOLUMNE.—The whole of the necessary preliminary operations have been completed, and a properly-qualified commissioner, with staff, have left England for the mines. Immediate steps will be taken to make an ample mill-test of the quartz, the assay value of which is so exceptionally high. Active operations will be commenced forthwith, and the most confident opinions are entertained that this enterprise will prove a permanent success.

SWEETLAND CREEK.—Official advices have been received up to a late date, and attention is directed to the same in another portion of this day's Journal. A remittance of 1000*l.*, through the Oriental Bank, has been received on account of the May workings, and indications point to larger profits in the future from the satisfactory development now being made.

PACIFIC.—During the week information has been received from one of the directors of the Pacific Mining Company, at present on a visit to California and Nevada, of a highly favourable character. He had on the day of his writing arrived on the mine, and he states—"I have to-day only inspected the books and property above ground; to-morrow I shall go underground, to examine what all here say is the most extraordinarily rich lode ever found in this part of the country." This is much to say, when it is remembered that one lode in Nevada has turned out in a few years silver ores of the aggregate value of over twenty millions sterling. From Grass Valley the advices respecting the company's Union Hill Mine is also of a satisfactory character, and shows a good profit in working.

EXPORTS OF RAILWAY IRON.—The exports of railway iron from the United Kingdom would appear to be still increasing, having amounted in April to 68,876 tons, as compared with 55,147 tons in April, 1869, and 58,904 tons in April, 1868. Russia took 20,619 tons, against 21,166 tons in April, 1869, and 20,19 tons in April, 1868; the United States, 37,016 tons, against 33,565 tons in April, 1869, and 32,116 tons in April, 1868; and India, 15,986 tons, against 6517 tons in April, 1869, and 8016 tons in April, 1868. The American and Russian demand would seem to have reached its maximum, but it will be seen that there was a large increase in April as regards India. In the four months ending April 30 this year the aggregate quantity of railway iron exported was 306,027 tons, as compared with 233,353 tons in the corresponding period of 1869, and 178,931 tons in the corresponding period of 1868. The exports have increased this year to Prussia, Holland, Spain, Roumania, the United States (very slightly), Cuba, Brazil, Chili, British America, and India (largely); but they have decreased to Russia, France, Egypt, Peru, and Australia. The value of the railway iron exported in the four months ending April 30 was 2,471,407*l.*, as compared with 1,783,572*l.* in the corresponding period of 1869, and 1,375,684*l.* in the corresponding period of 1868.

STEAM-ENGINES AND MACHINERY.—The value of the steam-engines and machinery exported from the United Kingdom in the first four months of this year showed a sensible improvement as compared with the corresponding exports in the corresponding period of 1869. Thus, steam-engines were exported to April 30 this year to the value of 575,041*l.*, as compared with 409,492*l.* in the first four months of 1869, and 431,472*l.* in the first four months of 1868. The chief cause of the increase observable in this year's figures was the greater demand for our steam-engines in Egypt, which took them to the value of 105,424*l.* in the first four months of this year, against 29,054*l.* in the corresponding period of 1869, and 18,259*l.* in the corresponding period of 1868. General machinery was exported in the first four months of this year to the value of 957,670*l.*, as compared with 848,934*l.* in the corresponding period of 1869, and 725,960*l.* in the corresponding period of 1868. The exports of general machinery increased this year to France, Spain, Egypt, and Australia, but decreased to Russia, the Hanse Towns, Holland, Belgium, and British India. France appears to be our best customer for general machinery.

UTILISING SULPHURIC ACID RESIDUES.—By the invention of Messrs. R. SCOTT and W. M'IVOR, Addiewell, N.B., common salt is introduced into a decomposing furnace or other receptacle previous to the introduction of the common salt. It is of advantage that the furnace or other receptacle be heated. Vitriol tar is now passed into the furnace and the heat continued, the mixture being constantly stirred during the decomposition. It is desirable that the furnace or other receptacle be as close as possible consistent with the mass being continually stirred. The common salt may be also employed in the form of a solution of strong brine mixed with the vitriol tar, instead of salt in the usual form. The hydrochloric acid gas which is evolved during the decomposition may be conducted to condensers or towers, of the usual or any desired form.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending June 12 was 12,800*l.* 8s. 6d.

* * * With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Collieries in the St. Helen's District; Mining Notes from North Wales; Use of Gunpowder in Collieries (Wm. Lintern); Gold Mining in California (Wm. Hoskin); Metals and their Ores, No. V. (E. Gledhill); Tankerville Mine; Smyddes Dyluan Mine (T. Julian); Rock Boring by Machinery (T. Julian)—Mineral Resources of the Argentine Republic—Hogg's Secret Code—Foreign Mining and Metallurgy—Foreign and Australian Mines Reports, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 17, 1870.

COPPER.	£ s. d.	£ s. d.	IRON.	Per ton.
Best selected, p.ton	73	0	74	0 0
Tough cake and tile	71	0	71	10 0
Sheathing & sheets.	71	0	75	0 0
Bottoms	75	0	—	0
Old (Exchange)	63	0	—	0
Burra Burra	73	0	73	10 0
Wire, per lb.	0	10	—	0
Tubes	0	11	—	0
BRASS.	Per lb.			
Sheets, per lb.	8½d.			
Wire	7½d.			
Tubes	10d.—11d.			
Yellow Metal Sheath, p.lb.	6½d.—6¾d.			
Sheets	6½d.			
SPELTER.	Per ton.			
Foreign on the spot	£19	0	19	5 0
" to arrive	19	0	19	5 0
ZINC.				
fa sheets	£23	10	0	—
QUICKSILVER (p. bottle)	7	17	0	—
TIN.				
English blocks, £2186	0	0	137	0 0
Do., bars (in brls.)	137	0	138	0 0
Do., refined	141	0	—	0
Banca	134	0	—	0
Straits	133	0	—	0
TIN-PLATES.*	Per box.			
IC Charcoal, 1st qua.	1	6	1	8
IX Ditto, 1st quality	1	12	6	13
IX Ditto, 2d quality	1	6	1	6
IX Ditto, 2d quality	1	12	6	13
IX Coke	1	3	0	3
IX Dito	9	0	1	9
Canadaplates, p.ton.	13	0	14	10
Dito, at works	13	0	14	0
At the works, 1s. to 1s. 6d. per box less.				

REMARKS.—The general business of our market has been rather restricted, and quietude the characteristic of the week. There is very little variation in quotations, and prices, for the most part, are steady, sellers being indisposed to submit to further concessions.

COPPER.—It will be a matter of sincere congratulation if the feeling that at present exists prove the commencement of genuine improvement in our market. Prices for many years past have proved so adverse to the interests of sellers, that the losses sustained must have been enormous. Consumers are, perhaps, the only class who have reaped the benefit. For the last 14 or 15 years, with the exception of short intervals, prices have sunk lower and lower. Various causes have been assigned for this altered state of things, such, for instance, as iron vessels being substituted for wooden ones, thereby curtailing the requirements for sheathing. There are now great hopes of improvement. Yellow metal brazery, however, as well as sheathing, has very much taken the place of copper, and being found to be equally well adapted to the purpose, is likely in great measure to supersede the use of the latter. Another reason adduced for low prices is that the English Government have been sellers of copper instead of buyers, as heretofore. There are, doubtless, many causes which have all tended to bring about the same result. The imports from Chile still continue in excess of requirements, and add to an already large stock; and according to recent advices from Valparaiso it seems that, owing to lack of buyers there, or, perhaps, from fear of losing the advantage, the late speculative feeling here might have excited further consignments were about to be sent forward, and considerable quantities are announced for direct dispatch to Liverpool by steamer. Nothing will afford greater pleasure generally than the knowledge that a permanent favourable change has at last set in, and that sellers will be enabled to recoup some of their previous losses; but stronger evidences are required of a more decisive and reliable character to re-establish complete confidence, and we shall only be too ready immediately to acknowledge and give publicity to the first symptoms of a sound *bona fide* improvement. Sales of 4 by 4 sheets, from first hands, have been made at a slight reduction of 10s. per ton—7½*l.* Australian are being had at 7½*l.* Now, one other important circumstance, which may influence the future value of this metal. There has been for some time past a low money market, and facilities for holding over have been, consequently, comparatively light and easy; but, notwithstanding this, speculation has been able to accomplish little or nothing; and recent reports of the prospects of the harvest in France and elsewhere being unfavourable, an uneasy feeling is beginning to agitate the public mind with regard to monetary affairs.

YELLOW METAL is in less request, but prices have not given way. Orders are so extremely few that it is doubtful whether sellers will not have to accede to lower rates. The indents held over for execution are limited mostly to 6d. A little business, however, might be done at 4*l* higher, but the rates of exchange continue so bad that there is really no inducement to merchants to spring in their offers.

IRON.—In the midst of great comparative quietness in the metal market generally iron again forms a marked exception. From the various centres of English industry in this department reports reach us of continued or increased activity. In the North of England the greatest activity prevails, and, as might be expected, prices are stiffening. Last quotations from that district—Middlesborough pig-iron, 1*l*. 56s. 6d.; No. 2, 55s.; No. 3, 53s.; No. 4, 52s.; common bars, 7s. to 7s. 5s.; cable iron, 7s. 10s. to 7s. 12s. 6d.; best ditto, 8s. to 8s. 5s.; ship-plates, 17s. 6d. to 19s.; boiler-ditto, 9s. 12s. 6d. to 9s. 15s.; angle-iron, 7s. 18s. to 7s. 15s.; rails, 7s. 10s. to 7s. 14s.; cast-iron, girders, plain, 5s. 17s. 6d., wrought ditto, 13s. to 14s. The production of iron in this district has vastly increased, showing an increase upon a similar period last year of 19,125 tons. Notwithstanding the impetus given to production, iron cannot be made fast enough to meet the pressing demand, and ship-owners are kept for a considerable time awaiting their cargoes. Migration from the east end of London to the iron works is progressing. Some find employment in the shipyards, while the larger proportion are readily engaged in the ironstone mines. Thus not only is immediate relief afforded to the unemployed poor of London who are willing to work, but unwilling or unable to emigrate to the colonies, but the sudden influx of hands where they are so much needed has prevented an undesirable advance of wages being demanded, and the yield of raw material has been greatly increased. From the Welsh districts the reports are eminently satisfactory. The demand for America, Russia, and the Continent is still on the increase. The makers' order-books are well filled that they are not likely to enter into further engagements, unless very tempting terms are proposed. In the Glasgow pig-iron market there has been some excitement, and variations of from 1s. 6d. to 2s. per ton have been taken place. Shipments during the week ending June 11, 1870, were 12,731 tons, whilst in the week ending June 12, 1869, they were 10,889 tons, showing an increase of 1842 tons. The total increase since Dec. 25 has been 24,585. Glasgow pig-iron, 6s. 6d. cash, 6s. 11s. one month, business in London.

LEAD.—LEAD continues to be very much neglected. The large shipments which have already gone forward to China, and the discouraging advices received from that market, render buyers indisposed to operate, except at prices which sellers will not at present accept. Market closer shade steadier.

SPELTER still very quiet. There is not the slightest sign of recovery. Quotations are nominal, and remain unaltered.

TIN.—In our last issue, we reported "tin not quite so firm." Straits has gradually slightly given way during the week. Business has been done at 133*l.* to 133*l.* 10s.; Banca quoted 134*l.*

TIN-PLATES are in fair request.—**QUICKSILVER** unaltered.

COAL MARKET.—The fresh arrivals this week number 101 ships. The market for household coal has continued steady, and last week's prices have been fairly supported. Hartley's have declined 3*l.* Hetton Wallsend, 17*s.*; Original Hartlepool Wallsend, 17*s.*; Haswell Wallsend, 16*s.* 6d.; South Hetton Wallsend, 16*s.* 6d.; Hartlepool Wallsend, 15*s.* 6d.; Kelloe Wallsend, 14*s.* 6d. Unsold, 9 cargoes; 30 ships at sea.

THE IRON TRADE.—(Griffiths' Weekly Report)—The advance in the price of corn at Mark Lane, and the fact that the French are still large buyers, together with the drought which has existed for some weeks, have created a pause in all large business transactions, and the iron trade cannot be expected to form an exception to the action of the monetary law which regulates great trading interests. We have not had a large business this week in iron, nevertheless the rail trade continues buoyant, and while foreign stocks and railway shares, with our own funds, have all given way, the Ebbw Vale Company, Brown and Co., and Bolckow and Vaughan, have met with increased buyers, and the shares of all these companies have advanced considerably this week. We believe the prospects of the iron trade to be good, and as a considerable quantity of rain fell in most parts of England last night, and as the aspect of the

weather while we write is decidedly favourable for more rain, we hope and believe the market will be better next week for all kinds of iron.—75, Old Broad-street, June 17.

The settlement of the fortnightly account in the MINING SHARE MARKET occupied two or three days in the early part of the week, and the prices of shares in several mines was affected by it for a time. Speculation had evidently been carried on to a considerable extent in two or three rather prominent mines, and as large numbers of shares had to be "carried over," the adjusting prices for that purpose were, as usual, made as low as possible, and accounted for the lower quotations early in this week of West Maria, Van Consols, Australian United, and others. After the account the market became firmer, but only moderately active. The shares mostly dealt in were East Lovell, Grenville, East Grenville, Van Consols, Australian United, West Maria, New Lovell, North Crofton, Pacific, South Condor, and a few others.

West Chiverton shares have been largely dealt in, and leave off 51½ to 55*l.* Van shares have improved to 80, 82½; Tankerville, 18*s.* to 19. Van Consols weaker at 3½ to 4*l*; the lode in the 30 is not looking so well for lead. Tincroft shares have advanced to 35, 36*l.* East Lovell shares, after fluctuating as usual, leave off 34½ to 35½; New Lovell, 23 to 3*l*; North Levant, 9½ to 10½; North Lovell, 6 to 7*l*. Wheal Grenville shares have been firmer, and leave off 2½ to 2*l*; the 90, east from north shaft, has improved to fully 20*l.* per fathom. The bottom of the 80 is worth 30*l.*; the 80 east, 28*l.* to 30*l.* per fm. East Grenville, 2½ to 3*l*; the 95 east will produce 1 ton of copper ore per fathom; the 75 east, 1½*l*; the 55 east, 5 tons; the 45 east has improved to 2 tons per fathom. Chiverton Moor, 4½ to 5*l*; Chiverton Valley, 3½ to 4*l*; Cook's Kitchen, 21 to 23*l*; Drake Walls, 27*s.* to 29*s.* Dolcoath, 130 to 135*l.* at the meeting the accounts showed profit on two months' working of 5297*l.* 10*s.*, and a dividend of 3½*l.* 10*s.* per share was declared. The balance carried forward was 1196*l.* 9*s*

Journal, and the works where the operations of the company are to be carried on appear to be most favourably situated. The colliery is near the town of San Jeronimo, on the River Jacuhy, whence there is uninterrupted steam navigation with the capital, the shipping ports, and with various inland ports. The seam of coal at present being worked is 4 ft. 8 in. thick, and has been proved by sinking to be of considerable extent. Dr. Percy, of the Jermyn-street School of Mines, states the theoretical evaporative power of the coal to be 10,000 lbs per lb. of coal. Ironstone capable of yielding a high quality of metal and flux are found in the immediate locality of the colliery, so that smelting operations could be most successfully carried on. It is proposed to raise a capital of 100,000*l.*, in shares of 5*l.* each, and it is estimated that upon this amount a dividend at the rate of 30 per cent. per annum may be anticipated. The direction consists of gentlemen practically connected with the business which it is proposed to establish.

The PIEL HEMATITE IRON COMPANY, to the formation of which, with a capital of 100,000*l.*, in shares of 2*l.* each, reference has already been made, will close the list of applications for shares on Tuesday next. The company propose to smelt the richer ores of Ireland in combination with the hematite ores of Furness, and the site selected for the works is near the establishment of the Barrow Hematite Steel Company. The proximity of the Barrow docks and harbour of Piel will be highly advantageous, and the cost of making iron will be about 2*l*. 12*s*. 6*d*. per ton, whilst the selling price is now 3*l*. per ton at existing works, so that a weekly output of (say) 1200 tons on the average from three furnaces, which it is proposed to erect, would, allowing for market fluctuations, give 15 per cent. per annum upon the 70,000*l.* to be called up in the first instance for the purchase of the property and for working capital.

The NEW VITIFER CONSOLS MINING COMPANY is in course of formation, with a capital of 12,000*l.*, in shares of 2*l.* each, for the purpose of developing a valuable mineral property near the Old Birch Tor, and Vitifer Mines, on Dartmoor. The sett is very extensive, from 2000 to 3000 acres, and is held direct from the Duchy, at one-eighth part royalty. The property is well situated, and there is an abundance of water power at all seasons of the year. Six tin lodes have been already opened up, and proved to be most satisfactory: there are also three good cross-courses within the sett, and from 200 to 300 tons of tin-stuff is now at surface ready for stamping. Messrs. Barnard, Thomas, Tribe, and Co., of Bristol, who have undertaken the formation of the company, have satisfied themselves as to the position and prospects of the mine. They have employed Captain Edwards, an independent mining surveyor, to inspect the mine, and his report is appended to the prospectus, which will be found in another column. Capt. Skewis and Trevarthan make certain suggestions for the future working of the mine, and consider that if these be vigorously carried out the mine may be brought into profitable working in six or eight months. No. 4 lode is from 7 to 8 feet wide, and, judging from samples already assayed, will leave large profits. Capt. Wm. Richards considers the property one of great value, and that it can be developed on a mere nominal outlay. It is mentioned that among the directors are gentlemen of known practical knowledge and experience, and that this, in connection with their large interest in the company, cannot fail to give confidence.

At Dolcoath Mine meeting, on Monday, the accounts showed a profit of 5237*l.* 10*s*. 1*d*. on the two months' working. A dividend of 50*s*. 2*d*. (3*l*. 10*s*. per square) was declared, and 1196*l.* 9*s*. 5*d*. carried forward. After the business was concluded, the large party, numbering over 70 adventurers, adjourned to the dining room, where they partook of an excellent dinner, under the presidency of Mr. M. G. Pearce, of London. After the usual loyal toasts and the health of the lord of the manor had been drunk, the Chairman, in proposing the toast, "Continued success to Dolcoath Mine," said the dividend they had received that day admirably told its own tale as regarded the state of the mine. At the deepest point—the 302 ft. level, or 340 ft. from surface—the lode was worth 2*l*. per fathom, the deepest point of any mine in operation in the neighbourhood, and an important feature for future permanency. The shareholders should bear in mind that the lodes in Dolcoath were very wide—often from 14 to 15 feet—and almost inexhaustible. The tin market was good and the demand great, and as their future prosperity depended much on a continuation of these circumstances, he saw no reason why they should not enjoy a long season of prosperity. He then alluded to the depressed state of the copper market, and was of opinion that better times were in store for copper miners. He hoped that the "builing" and the "bearing" in mine shares would never be resorted to again as in times past. For his part he would never employ a broker who sold a share that was not his own. The Chairman then proposed the health of the manager. Capt. Isaiah Thomas said it was very gratifying to the agents to meet the shareholders account after account with the declaration of an increased dividend. They had that day declared the largest dividend they had received for the last 10 years, which was principally saved from the economy exercised in the increased expedition in dressing the ores and drawing the stuff. He did not know the mine was at all richer, probably not so rich. The great feature of importance now was the lode in the deepest point of the mine. If at that level (the 302) a lode of value were discovered, their position would be such as would give them a mine of unusual value and permanency.

At West Seton Mine meeting, on Tuesday, the accounts showed a profit on two months' working of 125*l*. with a credit balance brought forward 12*s*. A dividend was declared of 14*s*. (3*l*. 10*s*. per share), carrying forward a credit balance of 12*s*.

At the Great Laxey Mining Company meeting, on Wednesday, the directors declared the usual quarterly dividend of 10*s*. per share (being at the rate of 50 per cent. on the capital), payable in 14 days.

At the South Wheal Crofty meeting, on Monday (Mr. E. H. Rodd in the chair), the accounts for the four months ending April showed a credit balance of 77*l*. 13*s*. 9*d*. The profit on the four months' working was 46*l*. 2*s*. 5*d*. A dividend of 46*l*. 10*s*. (10*s*. per share) was declared, and 30*l*. 3*s*. 9*d*. carried to credit of next account. Capt. Gilbert and Toy reported upon their various points of operation. They have about 45 men on tribute, at an average of 9*s*. 6*d*. in 1*l*. It was resolved that the questions connected with the working of this mine, with reference to Tincroft and East Pool sets, be referred to the lord's agents to negotiate with the agents of those mines. An annual subscription of 2*l*. 2*s*. was voted to the Accidental Ward of the Convalescent Miners' Hospital, Redruth.

At Brynpostig Mine meeting on Monday (Mr. Job Taylor, J.P., in the chair), it was unanimously decided to increase the capital to the extent of 50*l*. Details in another column.

At Wheal Creb meeting, on Thursday (Mr. H. Emanuel in the chair), the accounts for the three months ending April showed a cash balance of 11*l*. and liabilities in excess of assets of 19*l*. 10*s*. 5*d*. A call of 1*s*. 6*d*. per share was made. The agent reported very encouragingly of the prospects of the mine.

At the Mid-Wales Lead Mine meeting, on Monday (Mr. Job Taylor, J.P., in the chair), the report of the directors congratulated the shareholders upon the improved condition of the mine. The board continued to have the utmost confidence in the ultimate success of the mine, and although much disappointed that the sales of ore had not been maintained, they still believe that the time is quickly approaching when the mine cannot fail to make good profits. The report of the manager (Capt. John Kitto) states that he has still the greatest confidence in the ultimate success of the undertaking, and firmly believes that this property on being more extensively developed will prove to be one of the most productive and profitable mines in the whole district. Captain Walter Eddy, who has specially reported upon the property, feels confident that by further sinking Mid-Wales will become a good dividend-paying mine. The Chairman, in moving the adoption of the report and balance-sheet, expressed his surprise that the whole of the debt-holders had not been taken up by the shareholders, and hoped that outsiders would not be allowed to come in and reap the advantage of the expenditure incurred upon the mine. Captain John Kitto, the manager, explained the prospects presented at the different points of operation, and expressed an unabated confidence in the ultimate success of the mine. The lode in its character was similar to the Van lode; it was not so large, but it was next to Van the largest lode in the district. He expected the next sale of ore would take place in July, and that it would not be less than 20 tons of lead, and about the same quantity of blende. The motion adopting the report and balance-sheet was put, and carried unanimously. Messrs. Job Taylor, Newby, Nightingale, and Ross were re-elected directors. Messrs. Killingsworth and Co. were re-elected auditors. A special vote of thanks was passed to Capt. Kitto, the manager. A vote of thanks to the Chairman and directors concluded the meeting.

At the South Condurrow Mine meeting, on Thursday (Mr. Weston in the chair), the accounts showed a profit upon the four months' operations of 7*l*. The Chairman congratulated his fellow-shareholders upon the encouraging character of the report (which appears elsewhere). It was extremely gratifying to his colleagues and himself to find that the mine was in such a favourable position. There was no doubt that at last they had turned the corner, and he firmly believed that the general prospects of their mine were certainly as encouraging as any mine in the district. He believed that with energy and circumspection in their work, great results would be derived. Mr. E. King (a member of the committee) stated that very few mines had been inspected more of late than South Condurrow, and the general opinion appeared to be that they possessed a large deposit of tin. With that metal at 10*s*. or 1*l*. per ton less than the present price good profits ought to be made. The report was ordered to be entered on the minutes, and the accounts were passed and allowed. The committee were authorised to purchase a suitable steam-whim; they were also requested to draw up a request to be forwarded to the trustees of the Pendarves estate with the view of obtaining an abatement of the dues. The committee of management were re-elected, Mr. J. Field being voted to the vacancy occasioned by the resignation of Mr. Buckland. A vote of thanks to the Chairman concluded the proceedings.

At the Plumas Gold Mining Company of California first meeting of shareholders, held at the London Tavern, Bishopsgate, the provisional directors retired, according to the terms of the prospectus, and an influential board was elected for the ensuing year. The whole of the proceedings were of a satisfactory character, and a committee of shareholders was appointed to confer with

the directors for the purpose of selecting an agent to proceed to California to report upon the property. We understand that Professor Vincent, of the Geological and Royal Geographical Societies, has since been selected for this important duty, and will start for San Francisco without delay.

At the Nerbudda Coal and Iron Company meeting, on Wednesday (Mr. S. J. Wild in the chair), the report of the directors and balance-sheet were received and adopted. Details in another column.

A petition for winding-up the Fortune Copper Mining Company of Western Australia (Limited) is to be heard before Vice-Chancellor James on the 25th instant.

Contracts for Mine Materials.

For WEST CHIVERTON, and other Mines, near TRURO, CORNWALL. TENDERS are invited for the SUPPLY of MATERIALS as under, for twelve months—viz., from the 1st day of July next to the 30th of June, 1871:

About SIX THOUSAND TONS of COAL. CANDLES, TALLOW, ANTI-FRICTION GREASE, RAPE and OLIVE OIL, IRON, STEEL, CRUSHER ROLLS, LEATHER, WHITE, RED, and SIEVE LEAD, NAILS of every description, &c.

For particulars, apply to the Manager, Capt. JULEFF, Garas Wharf, Truro; or to Mr. RICHARD CLOGG, Purser, Liskeard, to whom Tenders should be addressed "Tender for , Garas Wharf, Truro," on or before the 24th instant, and not later than One o'clock P.M.

Dated Liskeard, June 8, 1870.

Seven and a-half per cent. Debentures—First Mortgage.

THE NEATH MERTHYR STEAM COLLIERY COMPANY (LIMITED) are PREPARED TO ISSUE DEBENTURES FOR FIVE THOUSAND POUNDS AT SEVEN AND A-HALF PER CENT. INTEREST for THREE or FIVE YEARS, in sums of not less than £100. For forms of application, &c., apply at the Offices of the Company, 10, King's Arms-yard, London, E.C.

TO INVESTORS.

PREFERENCE SHARES in a very desirable COLLIERY, situated in the heart of the COAL DISTRICTS of SOUTH WALES, to yield a SEVEN PER CENT. PREFERENCE DIVIDEND, with a further estimated DIVIDEND of from SEVEN to FOURTEEN PER CENT.

Full particulars may be obtained of Messrs. SHELFORD and ROBINSON, C.E., No. 7, Westminster-chamber, Westminster; or of Messrs. FEARON, CLABON, and FEARON, Solicitors, 21, Great George-street, Westminster.

SPECIAL OPPORTUNITY.

THERE are TWO MINES—one a most promising COPPER ORE MINE, and the other a TIN MINE—upon which a very good sum has been spent by three or four gentlemen of good position, under the Cost-book Principle, each property being divided into 4000 shares. As they are quite out of the neighbourhood, they do not care, as private individuals, to spend more money, but are willing to SELL a FAIR NUMBER OF SHARES AT A LOW FIGURE, the entire sum paid for them being paid to the Mines' account, for the further development of the Mine, or they are prepared to TREAT for the ENTIRE SALE.

Apply to Mr. H. BLANCHFORD, Accountant and Sharebroker, 59, High-street, Exeter.

TO CAPITALISTS.

THE PATENTEEs of the HAFENNEGGER EXPLOSIVE COMPOUND wish to meet one or more Gentlemen willing to ADVANCE SUFFICIENT CAPITAL to WORK OUT or PURCHASE the PATENT in England or the Continent. This compound is used for BLASTING PURPOSES in MINES, QUARRIES, &c. It is ten times stronger, not so expensive or dangerous as gunpowder, and produces no smoke. We have most favourable reports upon experiments made in Cornwall, where a large sale can immediately be made.

Apply to Mr. CHARLES DORFIS, 40, Waterloo-road, London.

GEAR'S MINE, ST. HILARY.

THE PROPRIETORS of the above MINE, being also the landowners, and having made a DISCOVERY OF TIN, which is only worked to the depth of a few fathoms below surface, where there is now a good lode in the bottom and ends, are open to TREAT with MINING COMPANY to WORK the same, which will be granted at 1*l*-th part royalty. More than £100 worth of tin has been sold from here by miners within a very short time, and it also shows good indications for the production of copper.

Every facility will be shown to mining agents, or others, for the inspection of the mine, by applying to the proprietors, Gear's Mine, Goldsithney, Marazion, Cornwall.—Dated June 7, 1870.

RAILS.

WANTED, the FOLLOWING QUANTITIES of NEW or SECONDHAND RAILS:

About 40 tons T RAILS, 24 lbs. to the yard;

About 30 tons T RAILS, 16 lbs. to the yard;

About 30 tons CONTRACTORS' RAILS, for sidings, from 40 lbs. to 50 lbs. to the yard.

Particulars and terms to be sent to the SILKSTONE MAIN COLLIERY, near Barnsley.

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THE ADVERTISER is open to an ENGAGEMENT as BUILDER or MANAGER of a SPELTER WORKS, having had considerable experience. No objection to go abroad.

Application to be made, by letter, stating particulars, &c., to "Spreiter," care of Frederick May, Advertising Agent, 9, King-street, St. James's, S.W.

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AN OLD and RESPECTABLE FIRM in the METAL TRADE would be happy to treat with some WORKS for the SALE of their SPELTER in one of the PRINCIPAL TOWNS in the MIDLAND COUNTIES, where the consumption of spelter is very large.

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A COLLIER OWNER, having an opportunity of extending the workable area of Coal Land, DESIRES ADDITIONAL CAPITAL TO CARRY OUT HIS VIEWS.

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For particulars and to treat, apply to Messrs. URWICK and MARSTON, solicitors, Ludlow.

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AN INTEREST in a VALUABLE and EXTENSIVE MINING PROPERTY FOR SALE, to which a railway is now being completed.

For particulars, address "G. and R.," care of Mr. B. Fothergill, C.E., 15, George-street, Mansion House, London.

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TIN MINE FOR SALE.

TO BE DISPOSED OF, on very reasonable terms, a FIRST-RATE TIN MINE, with MATERIALS, BUILDINGS, &c., thereon, in a good TIN DISTRICT. Parties wanting such, with a small capital, will find this to be a rare opportunity.

Apply, "Z. Y.," Post Office, Redruth, Cornwall.

MINING SETTS IN DEVON.

TIN, COPPER, AND LEAD, in the Manor of SHEEPSTOR, and LANDS in TAVISTOCK, WHITCHURCH, PETER TAVY, LAMER, and LIDFORD. Water power. Terms, 21 years, renewable. Dues, 1-30th per Ton, 1-29th for Copper and Lead, reduced to 1-60th after a moderate outlay, until mines pay cost.

Apply to Mr. CATER, Solicitor, Plymouth.—Feb. 19, 1870.

TAVARONE MINING COMPANY, ITALY.—FOR SALE, TWENTY SHARES in this highly-recommended Mine, at 5*s*. discount.

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FOR SALE, at BLAGILL MINE, near ALSTON, a considerable QUANTITY OF BARYTES, ready for delivery.

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TO INVESTORS.

TO BE DISPOSED OF, a FEW SHARES in a FIRST-CLASS DIVIDEND-PAYING UNDERTAKING. Will be sold to pay not less than 17 per cent. per annum.

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TO BE LET, a VALUABLE COAL FIELD, in NOTTINGHAMSHIRE, containing between TWO THOUSAND and THREE THOUSAND ACRES of the TOP HARD SEAM of COAL.

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TO BE LET, ON LEASE, for a term of years, SEVERAL ACRES of LAND, suitable for MANUFACTURING PURPOSES, advantageously situated on the south bank of the River Tyne, about two miles below Newcastle-on-Tyne, and within a quarter of a mile from the North-Eastern Railway. There is a good quay frontage, with deep water.

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Sole Manufacturers of the Patent Self-acting

ORE CRUSHING AND PULVERISING MACHINERY,

Patent Coal-getting Plant,

NOTICES TO CORRESPONDENTS.

VAN.—Holding, as I do, a large interest in this mine, may I venture to enquire of you what my real position is, and if when the new shares are fully paid they will rank *part passim* with the existing issue, take the same dividend, and command the same value?—A SHAREHOLDER: *Maldon*.—[In reply to numerous enquiries of a similar character, it may be stated that at the end of the year, when the shares are fully paid, they will rank for dividend and command the same value as the existing issue.—ED. M. J.]

CRUSHERS AND STAMPS.—As there appears to be no work published containing detailed descriptions of the several kinds of crushers and stamps, both steam and rotary, used in Cornwall, I would suggest that it would be very interesting to those of your readers who have never had the opportunity of seeing them working if some of your Cornish correspondents would supply particulars of the kinds most commonly used, and the relative merits of each.—M. G. M. : *Bristol*.

THE LARGEST IRON WORKS IN ENGLAND AND WALES.—Can any of your correspondents inform me through your columns which is the largest iron works in England and Wales? I wish it to be understood that I refer to one single works, and not to one company of proprietors having works at different places several miles from one another.—J. B. : *Briton Ferry*.

VOLUNTARY LIQUIDATORS—"X. Y. Z."—There is no fixed rate of commission, charges, &c., allowed by law to the liquidators for winding-up voluntarily a limited company. By section 33 of the Act the company in general meeting must fix the remuneration to be paid to him, and by section 144 all costs, charges, and expenses properly incurred in the voluntarily winding-up of a company, including the remuneration of the liquidators, is to be paid out of the assets of the company in priority to all other claims.

LEAD MINING IN WALES.—We do not know of the East or West Van—there is a South Van.

CALIFORNIA—"T. F." (Grass Valley).—The address of Col. O'Connor Sidney is not known. He has been in Paris during the past few weeks. When he returns to London will write.

NORTH CARADON.—We shall publish all the details when the proper time arrives. At present it would be premature.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, JUNE 18, 1870.

OWNERSHIP OF MINERALS FOUND IN EXCAVATION.

A subject of great importance to mining engineers and mineral owners, arising out of a claim to sand, has recently been tried in the Wolverhampton County Court. The point was, to whom certain sand met with during an excavation belonged—that is, whether to the landowner, who had licensed the town corporation of Wolverhampton to make the excavation for sewerage purposes, or to the contractors who, by virtue of their contract with the town corporation, had agreed "that all earth not needed to fill up the trenches shall be carted away and disposed of by the contractors with all convenient speed." The learned judge who tried the case, after due consideration, adjudged in effect that the contractors were the absolute and beneficial owners of the sand excavated, and that the landowner was not entitled to claim either the sand or its value, from either the contractors or the persons to whom they had sold it.

It seems to us that the learned judge was quite right in his judgment; and although the grounds of such judgment are not before us, yet we think it is safely supported by several well recognised legal principles, the chief and obvious one being that as the landowner had licensed the excavation so he had also impliedly licensed all the usual ancillary powers and acts necessary to the due execution of his licence. What, we ask, would the landowner have said if, instead of valuable sand, barren earth or rock had been excavated, and he had been requested to cart it away from the works? We think his answer would have been a refusal; and that if he had vouchsafed any reasons he would have said, "I have indeed licensed the excavation, but I have not in any way contracted to clear away your rubbish." Or, "I cannot find it; 'tis not in the bond." Or supposing the contractors had left the excavated earth on surface, would not the landowner have demanded its removal? We think he would, and that the law would have enforced his demand, if called on so to do.

As regards the contractors, they, doubtless, when making their estimates speculated at least upon getting rid of part of the mineral at easy terms, even if they did not contemplate making something handsome by it; for we have reason to know that in London sewer contracts, if there be no stipulation as to the gravel the contractors calculate upon it as part profits. But in the case before us what was there to prevent the contractors filling up the trenches with the sand instead of with the rubbish? Nothing. In such a case it is clear, even to concession, that the contractors would not have been liable to the landowner in damages for such an act. If we are right in this, then the contention of the landowner must be, and is, that the contractors might have destroyed the sand by filling up with it, but if they saved it they saved it for him, the landowner. Such a contention seems to us to border on the absurd.

In truth the landowner should, when granting his license, have reserved his right to the sand by a positive reservation, in which case the corporation would have varied their contract with their contractors, and the contractors would, in all probability, have varied their price in order to meet the new condition. As it is, the landowner's default ought not in justice to work a pecuniary loss to innocent contractors, and we rejoice to find that the learned judge has been able to resolve the above interesting point consonantly with, as it appears to us, equity to all parties.

WHAT MINERALS ARE LEFT IN THE OLD COAL FIELDS?

The solution of this query involves considerations of grave moment to very many readers of the Journal. These entertain very different views as to what yet remains to them. Their estimates partake of their respective idiosyncrasies. Are they men whose habit of mind is least marked by hopefulness, then they are inclined to regard the old districts as all but worked out. Are they of the cheery hope-on-hope-ever school, then they laugh at the forebodings of the doleful, and believe that in the old fields there is many a fortune yet to be made. These latter have our sympathy.

As in the agricultural operations of this country a good crop is not to be obtained by merely scratching the earth's back with a plough, but by persistent deep furrowing; so the days of open workings and of shallow sinkings may have well nigh come to an end in the old colliery districts, and fortunes be now obtainable only, in many instances, by going over previously wrought ground. "Going over old ground, why we've been going over old ground for years, and, excepting what is under water, there's hardly a bit of coal the size of a nutmeg left." Thus we can imagine the colliery proprietors of the foreboding class responding to the cheery. Exactly, "excepting what is under water." But why leave it under water? "Because I am not going to spend my money in draining my neighbour's property," he rejoins. And, then, still reluctant to believe that the future may in any respect worthily approach the past, he adds—"Besides, there is no certainty that what may be found will repay the cost." Leaving the first objection for a moment, without denying that it has some extent of reason in its favour, let us make known what one of the foremost men in a notoriously old field has just said.

Last Monday the South Midland Institute of Mining, Civil, and Mechanical Engineers held their first annual meeting in Wolverhampton. At the dinner in the evening Mr. E. JONES, the mining engineer of the Lilleshall Company, of which it will be remembered Earl GRANVILLE is chief, speaking from his place as Vice-Chairman, made prominent allusion to the often-uttered assertion that Shropshire and South Staffordshire are within but a trifle of being irreversibly used up. He admitted that as they went on working they found a need for increased exertion in seeking further supplies, but denied that these exertions, when they were made thoughtfully and skilfully, were fruitless. On the contrary, he claimed for them that in notable instances they resulted in conspicuous success. One of the most recent was that in which old workings, for long years

flooded, had at length been drained, and were now yielding returns far surpassing those which accompanied the early winning.

But it is not merely to the releasing of submerged mines that the old districts have to look for a prolongation of their existence. Explorations over the acknowledged boundaries, and in doubtful spots within it, will yield much revenue to those who may make them. Upon this point we would again quote Mr. JONES. Taking the same line of argument that we are now adopting, that gentleman would have those mining engineers who, like himself, have to direct operations in old districts, by no means despair of coming to fresh fields and pastures new. Citing the Granville workings, and likewise the Stafford pits, he showed how, in respect of the first in particular, the Lilleshall Company continued to sink incessantly, night and day, for five years, against the views of nearly all the "authorities," local and otherwise. Within six days of the time when their operations were strikingly ridiculed they came upon coal, splendid in quality, and so abundant in quantity that the Granville workings and Stafford pits demonstrated that there was now in the possession of the Lilleshall Company alone enough fuel to supply all Shropshire throughout another century. Further, let it be borne in mind at how much less cost, as compared with former times, such explorations as those just noticed can now be carried on. Including interest of money, the Granville workings—for which Mr. JONES must have the chief credit—cost the Lilleshall Company 60,000*l.* For that outlay it is claimed that a return will be secured even larger than that which will reward the expenditure of some 400,000*l.* at the Monkwearmouth pits, eminently judicious as that great outlay will prove to the courageous and enterprising proprietors who, when a quarter of a million of money had been spent without appreciable results, did not hesitate to follow up that sum with a further 150,000*l.*

They are the most experienced and the best informed who in every district are the most confident as to the future. Mr. JONES would have his fellow-engineers without despair in the old districts. And no less an authority than the present Chairman of the Ironmasters' Association, Mr. RICHARD SMITH, the representative of the Earl of DUDLEY, in speaking in the Dudley Museum, on Tuesday, within only a few hours of the time at which Mr. JONES spoke in Wolverhampton, encouraged his auditory as to the future of that ancient mining ground, and stated that he was about that afternoon to confer with Mr. BECKETT, the ex-president of the South Midland Institute of Mining Engineers, as to the directions in which it was Mr. BECKETT's opinion much valuable thick coal would be found—found, too, in a position which would go far to prove a connection between the South Staffordshire and the Shropshire fields. What, likewise, are we to say of the sinking through the Pemians on the Earl of DARTMOUTH'S Sandwell estate, about to be begun by a company comprised chiefly of mining engineers, located thereabouts, amongst whom, as amongst nearly all their fellows in that part of the kingdom, the conviction that coal is upon the spot, expressed by Sir RODERICK MURCHISON, is fully shared. With such facts as we have here sketched before them, let *Nil desperandum* animate the mine proprietors and mining engineers of the old coal fields.

RAILWAYS, AND SOUTH AUSTRALIAN MINES.

The enormous mineral wealth of the northern portion of the colony of South Australia has long been a matter of general remark, yet that wealth has been almost entirely beyond reach, in consequence of the insuperable difficulties of communication. The project of a railway from Port Augusta northward is again attracting considerable attention in Adelaide, and it may be hoped that the local Government will offer sufficient inducements to the promoters to ensure the subscription of English capital for the construction of the line. The *Chronicle* and *Mail* very truly remarks that the railway will enable the vast mineral wealth of the far North to be brought on reasonable terms to an export market. The great arid belt stretching northward from Port Augusta being bridged over, provisions can be moved up to the fertile pastures lying beyond; stock can be conveyed across the desert, and thus second source of now undeveloped wealth be turned to good account. Seeing what the Blinman, under all its disadvantages, does already, sanguine anticipations appear justifiable. Meanwhile, it is of the utmost importance to place the mining interest in the most favourable condition possible. There should be no payment whatever to Government until a mine is proved to be remunerative, and then, perhaps, a small royalty upon profits would be the best plan. The latest advices from Adelaide announce the receipt of magnificent specimens of ore from Mount Lyndhurst Mine, some 20 miles beyond the proposed Great Northern Railway terminus, and every day furnishes additional evidence of the mineral wealth of the far North, and consequently of the facilities for a railway company to realise handsome profits.

That there is a great and growing disposition in Adelaide to encourage both railway and mining enterprise appears to be beyond question, and a more effectual means of augmenting the prosperity of the colony does not exist. An intelligent correspondent remarks that it has been the fashion to point to the gold fields of Victoria in explanation of the superior prosperity and activity of the sister colony, but that every man employed at the Moonta Mines adds more gold to the coffers of South Australia than is produced by the average of the entire gold digging population of Victoria, and that quite irrespective of the hands into which the profits of the mine may fall. It is undeniable, he continues, that the country north of Port Augusta abounds in minerals of high quality; the geological formation renders necessary the employment of capital in large sums to develop permanent mines; but the expense, and at times entire cessation of means of transit, are fatal to any great extension of operations northward. It seems, however, to be admitted, both in South Australia and here, that the line should and must be made, and the sooner it is made the sooner will date the revival of prosperity in the colony.

LEAD MINING IN SHROPSHIRE.

The success which has attended the more vigorous development of the mineral resources of Shropshire has not a little surprised the general public, who, however, are now awakening to the fact that the lead deposits of the county are second to none in the kingdom, while daily experience confirms the opinion that the prosecution of works to greater depths will prove them to be even superior to their long-celebrated neighbours of Cardiganshire and Montgomeryshire.

The mineral-bearing district of Shropshire is limited in extent, being only about twelve miles long by six miles wide; but this small area embraces a series of mines which taken collectively may, owing to their great and continued productiveness, be said to stand without parallel. Foremost amongst these mines is the one now known as Tankerville, a mine which for years has been the admiration of those conversant with the locality; and now, under new management, and with increased facilities for working, is literally astonishing the mining world by its great returns, entirely the produce of one lode, which, running nearly east and west, and varying in width from 20 to 50 ft., yields an amount of lead ore per fathom ever increasing with the depth of the levels, from 3 tons in the 42 fm. level to 30 tons in the 92 fm. level.

Tankerville cannot be called so enormous a sett, consequently it would be unjust to suppose that the productiveness of the main lode can be confined within its boundaries; in fact, superficial indications plainly show that the lode continues to course to the east in its full strength, and of the same masterly character, accompanied by several others, well known to be productive, of like formation, and running parallel to itself.

The ground into which these lodes penetrate immediately on leaving Tankerville has, during the past week, been secured by influential parties, who purpose losing no time in proving the value of a property that may fairly be deemed to contain the identical elements which, but a few fathoms removed, have contributed to form one of the grandest successes of modern mining.

For the rapid and thorough development of East Tankerville Mine will be secured all the advantages derivable by eminent scientific direction, seconded by sound local knowledge and able management, and the employment of such material influences as it may be found advisable to bring to bear, with a view of insuring for the undertaking a prosperous future. The prospectus and plans of the East Tankerville Mining Company (Limited) will at an early date be

brought before the notice of the public, who will then be invited to co-operate in working what has been described by an able authority as "the choicest piece of virgin mineral ground in Shropshire."

COAL-CUTTING BY MACHINERY.

The majority of the coal-cutting machines hitherto introduced have been designed to imitate the process of *kirving*, as performed by hand labour in driving an ordinary heading, and although considerable difficulty has been experienced in getting them to work satisfactorily, sufficient has been done to prove that whilst in difficult cases hand labour will perform a larger amount of work than the machine, and cannot, therefore, be replaced, there are many cases in which the machine is decidedly economical. From the specification of the recent patent of Mr. ANDREW KNOWLES, of Pendlebury, Manchester, it appears that he proposes to use hand labour for driving the leading headings and machine to undercut the pillars left. His improvements consist in the use and application of an oscillating metallic blade or bar, containing cutters or teeth, which act on the coal, so as to cut a groove or channel of any required thickness, depth, or length near the bottom of the bed of coal, either on the end or face of the mine, so as to facilitate the getting of the coal. The said blade or bar may be fixed in a frame, or supported at each end on a sliding block or bar, and maintained in state of tension by a weight or spring, if required, or by a piston acting on compressed air in a cylinder. By preference the blade or bar contains numerous slots, in which are fixed the cutters, by means of a key or wedge adapted to each cutter, so as to allow of the cutters being exchanged or sharpened as desired.

The sliding blocks or bars, to which the cutting blade or bar is attached, are each supported on a moveable carriage, situate on each side of the seam or bed of coal to be operated upon; and the said carriages lie on tramways, or other suitable appliances, so that they may move at the same rate as the coal is being cut. One of the carriages has fixed upon it an engine actuated by steam, air, or water, to give the necessary motion to the apparatus, and the pressure required by the cutters against the coal is given and regulated by the action of weights or springs acting on levers or pulleys, or both, through the agency of bands, rods, or chains, or by toothed wheels, or by one or more combinations of the worm and wheel.

When the apparatus is to be put in operation the cutting edge of the blade is brought up to the coal, and by the oscillating action given to it by the apparatus the required groove in the coal is cut, thereby enabling the miner to get the coal with greater facility and with less chance of accident to himself, and allowing the coal to be mined with less waste than usual. It will be understood from the description that the inventor really uses a bow-saw, so that his assertion that there will be less waste than usual will create no surprise; indeed, such a machine as that of Mr. Knowles need not reduce a quarter of an inch thickness of coal to small, and in some of Messrs. Knowles's mines it would, doubtless, ensure additional safety, as they have some very bad roofs to deal with. The machine is especially adapted to the Lancashire system of long work, which may be described as standing midway between long wall and pillar and stall, being much like pillar and stall working, with the pillars the same width, but ten times the depth.

COAL MINING IN NORTH WALES.

Business in most of the colliery districts is now very fair for the season, the tonnage going to Chester and Birkenhead being of an average character. At the HAMMER COLLIERY, where a large feeder of water was recently tapped, and in order to prevent it from over-powering the engine dams had to be put in for the purpose of excluding it—a work of no ordinary character—they have been completed, and the men are now driving out to reach the lower seam of coal.

At the MOSTYN COLLIERY a moderate trade is being done, and it is understood that blast-furnaces will shortly be erected near to the pits, for the purpose of smelting the valuable hematite ore which was formerly worked near Talgarth, up to about three years ago. At that time it had to be carted for shipment to Monta, at a cost of about 3*s.* per ton; but as a line of railway runs rather close to the stone it could be conveyed to the furnace. It is believed, at about 1*s.* per ton. The great interest which has been shown in the sinking by means of pneumatic power, and in diving bell suits at Bagin, may be said to have been brought to a close. Having got through the sand and gravel on to solid material, at a depth of about 30 yards, the pneumatic tubes have been taken out, and pumps for getting the water out are about to be put down. It is now believed that the most serious difficulties have been overcome, and that the work of sinking will be proceeded with in an expeditious and satisfactory manner. The colliery will be about the largest in the kingdom, the shaft being fully 20 ft. in diameter, and the bed of coal to be worked the well-known Five yard seam.

At the BAGIL COLLIERY, which is now under the management of Mr. Gilden, of Queensferry, a good deal of both coal and clay is being raised, the latter being of a fine quality, and got at the same time as the coal at Flint Marsh; also a moderate business is being done via the London and North-Western Railway, with which the colliery is connected.

The collieries in the Mold district are now doing about an average trade for the season. At COPPER both ordinary and cannel coal is being raised, and the owners, the Messrs. Thompson, of Rhieul, are applying for extra ground, and which from the high reputation of the firm there is little doubt will be granted by the lessors, the lords of Mold, we believe. There are some extensive oil works close to the pits, which use a considerable quantity of cannel, which is of a fine quality. The BRON COED COLLIERY is finding employment for a large number of men, and is sending a good deal of coal to Birkenhead for shipment from there. At BROMFIELD HALL the water having corroded the boilers new ones have had to be fixed in place of the old ones, and they have put down a wheel, so as to get a different supply of water.

Several of the collieries in the Buckley district are now looking more promising than for some time past, and with the transit facilities which will shortly be in operation the locality promises to become a really important one. At ASTON HALL, of which Mr. Gladstone, the premier, is the lessor, a moderate business in coal is being done. A large quantity of capital clay is also being raised, for which there is a very good demand. The SPON GREEN COLLIERY is working steadily, supplying the leading brick and tile works in the neighbourhood, of which there are several very extensive ones. It is expected that the seam being worked will be reached by drifting through in another part of the land.

In the neighbourhood of Queensferry the collieries continue to be kept very fairly going. At the PRESTATYN COLLIERY, which was very successfully sunk under the immediate superintendence of the manager, Mr. Gilden, a rather better trade is being done. The coal has just been analysed by Mr. W. B. M'Allister, of Liverpool, and the results have been highly satisfactory. The sample produced 70 per cent. per cwt. of cinder, 1*1*/*2* lbs., or 1*0*/*2* per cent. of ash per cwt., the stowage being 48 cubic feet per ton required for tons of coal. For marine purpose, Mr. M'Allister says it is of No. 1 quality. At the QUEENSPERRY COLLIERY, belonging to Messrs. Thompson, the two shafts have been got down, and the cages are now being put down, and the levels are being driven out.

In the Wrexham district there is not much change to be noticed in the business doing, which is of a very fair character for the summer season. The CAREPNTY COLLIERY is about to change hands, some of the elder members of the firm being desirous of retiring. At the SANDCROFT IRON WORKS, near Queenferry, owing to the extension of mining operations in the locality, a good business is being done. A large quantity of machinery is also being exported from the establishment, which has long been noted in the district, and from which the unfortunate Royal Charter was launched.

DEFECTIVE BOILER FLUES.—MR. PETER HIGSON, Government Inspector of Mines, has written as follows upon recent explosion:

"The flue of one of the steam boilers of the Holme House Colliery, near Wigton, belonging to Mr. Ralph Rimmer, suddenly collapsed when the men were absent. If the works had been in full operation the loss of life might have been serious. The flue was 3 ft. diameter, and made of 7*1*/*2* in. plates, which were in apparently good condition. The average pressure was under 50 lb. on the square inch. The flue had no inner or outer rings or straps of any kind to prevent collapse. No boiler flue that has to bear high pressure steam should exceed 2 ft. 8 in. in diameter, and even then it should have rings outside, at the distance of 4*1*/*2* ft., or at every other point, of angle or T-iron. It is to be hoped that this will be a warning to others."

THE MINERAL RESOURCES OF RUSSIA.—Although the mineral resources of Russia are known to be enormous, and such names as that of Demidoff enjoy an almost universal reputation, comparatively little is known concerning the individual districts; the publication, therefore, of a concise treatise on the "Russian Metallurgical Works, Iron, Copper, and Gold," by one so well acquainted with the subject as Mr. HERBERT BARRY, is a matter for congratulation, since the Russian empire undoubtedly affords a large field for the profitable investment of capital in mining and metallurgical enterprise, and Mr. Barry's book appears to furnish precisely the kind of information which the capitalist should possess. Commencing with an account of the earliest exertions of Nikita Demidoff, and continuing the record to the present time, the industrial position of Russia, so far as regards its metallurgical works, is extremely low, yet the opinion that will be formed from reading Mr. Barry's book is that many of them, if they could be purchased at their present value, and developed with English capital and skill, would prove highly remunerative, but that their purchase at a

nominal price (unless the payment be entirely dependent upon profits to be realised, in which case somewhat larger liberality might be exercised) is absolutely essential to success. The quality of the ore seems to be excellent, and labour is cheap, but the works appear to be of excessive size, as a rule, considering the quantity of fuel at command. Mr. Barry is careful to explain the relative merits of the several districts and works, and to suggest means for bringing them into profitably working order. The work, which is published by Mr. Ellingham Wilson, of the Royal Exchange, contains an abundance of valuable facts, and should be carefully studied by all who propose to embark in industrial enterprise in Russia. The book will be more fully noticed in a future issue.

TRADE OF THE TYNE AND WEAR.

June 16.—A most seasonable arrival of vessels in the North-Eastern ports during the last week has occasioned a fair amount of business in most branches of the coal, iron, and timber trades. There have been large deliveries of timber at Tyne Dock and other places for colliery and other purposes, and of esparto grass, for paper-making, while the exports of coal, iron, and machinery have been on a good scale, if not quite up to the very large quantities sent away weekly lately. The exports of coal during May show a large increase at all the leading North-Eastern ports, the total in May having been 551,890 tons, as compared with 438,953 tons in May, 1869. The quantity of coke sent away abroad was also considerably above the quantity sent in May last year. The quantity of coal and coke sent coastwise does not differ materially from the quantity sent in May, 1869.

THE BACKWORTH STRIKE.—A number of men arrived at this place from Wolverhampton on Wednesday week, having been engaged to fill up the places of those who had got work at other collieries in the district. About 100 arrived, mostly young men; and as is often the case when those migrations take place, they are, at least the majority of them, appear to be, wrong sort of fellows, rather more intent on amusement and frolic than real hard work. However, they were well received at Backworth, and no doubt many of them will learn to work this sort of coal, and settle here permanently. It is certainly very creditable to the old hands that they have shown no bad feeling, and it is not likely that any disturbances will take place on account of their introduction.

Another dispute, of a serious character, is now apprehended at Burradon Colliery. At these extensive works, where it will be recollect a most serious explosion occurred a few years ago, the men have given notice (the usual monthly notice) that they wish to have an advance of 2d. per ton. This notice was given on June 7, and it is feared at present that when this notice expires, on July 7, a strike may take place, but this may possibly be prevented. It is stated that the men at the Burradon Works, where a large number are employed, are earning large wages. This is, indeed, a fact which cannot be disputed; however, it appears that a section of the men have determined to attempt to get an advance.

On Monday last the annual picnic of the Northumberland miners was held on the seashore, near Blyth. An immense number of miners, their families, and friends, attended the gathering, not less than 15,000 persons being supposed to have been present. No less than twelve musical bands attended, and their performances conduced much to the enjoyment of the people. Although the gathering is not supposed to be arranged for the consideration of business matters, but more of the character of a social gathering, yet it is a custom for the leading members of the Miners' Union of this county on this occasion to address the older miners assembled on the state of affairs, and this meeting was remarkable for the number and character of the persons who delivered addresses. Mr. John Nixon, President of the Miners' Union, addressed the meeting. He stated that the balance-sheet showed an increase in the funds of the association over the previous year of 12371. 17s., the balance in favour of the association being in March, 1870, 6500*l.*, against 5264*l.* in March, 1869. Besides the ordinary current expenditure during the year, there had been voted upwards of 800*l.* towards assisting other districts. Allusion was made by Mr. Nixon and others to the gambling which is carried on by some of the pitmen, and a hope was expressed that these remarks would lead to some reformation.

Mr. Burt made some remarks on the Mines Inspection Bill, which he considered, on the whole, to be worthy of their approval. He, however, regretted that the Government had not pushed the Bill more during the present session, while he admitted that many important and urgent matters had engaged the attention of Parliament. He also alluded to the Backworth strike, and condemned in strong terms the conduct of the masters in ejecting the men from their houses there; and his remarks on this head are so illogical and absurd that nothing but prejudice can account for them, in our opinion. He, however, advocated arbitration as a mode of settling all disputes between masters and servants, and as this mode has been resorted to with success in the iron trade there is no reason why it should not succeed equally well in the coal trade. Mr. McDonald also addressed the meeting, and spoke of his efforts in promoting the Mines Regulation Bill, now before Parliament. He pointed out what he considered defects in the Bill, but expressed his opinion that it will pass during the present session; but if not, they would get a better Bill next session. Amongst the defects of the Bill he said that the clause providing for the education of miners' children was omitted, and that the defective system of inspection which prevailed would not be remedied by the Bill.

REPORT FROM SCOTLAND.

June 15.—The market for Pig-Iron has been very active all the week, but has fluctuated considerably. On Friday quotations dropped to 59s. 9d. cash, then rallied to 60s. On Monday the opening was easier, and after 60s. had been paid there was a fall to 59s. 9d. and a rally to 60s. at the close, with heavy buying. Those outside the trade, who are buying up makers' stock of pigs, and sending them into store at the present rate of 1600 tons a day, mean something; and, although they deny all intentions of "rigging" the market, there are grave fears entertained here that if this game is persisted in the market will get "rigged," and serious losses will have to be borne by somebody. Yesterday, 60s. 6d. cash, and 60s. 9d. a month, were the ruling quotations, declining on late change to 60s. cash, and 60s. 3d. a month. This morning the market was quiet, and 59s. 10d. cash was taken; afterwards 60s. cash, and 60s. 4d. was paid; closing, sellers, at these prices, buyers 1d. per ton less. Coltness, No. 1, 68s.; Gartsherrie, 67s. 6d.; Shotts and Langloan, 62s.; Eglington, 60s.; No. 1, g.m.b., 60s.; No. 3, 58s. 6d. Market sensitive and variable. The shipments of pig-iron from the Scotch ports for the week just ended amounted to 12,730 tons, against 11,890 tons in the corresponding week of last year, which makes the increase on the year to date amount to 24,620 tons. The increase in the imports from Middlesborough for 1870 is close on 9500 tons, with contracts for heavier deliveries during the remaining months of the year.

June 16.—To-day business in Pig-Iron was more animated, and a large quantity of "warrants" were paid for and removed from the market, which is, perhaps, as conclusive proof as we can have that a "rig" is impending. The price paid this forenoon was 60s. to 60s. 2d. cash, and 60s. 3d. to 60s. 6d. thirty days. In the afternoon business was done at 60s. 4d. prompt, 60s. 5d. ten days, and 60s. 7d. a month; closing, sellers, 60s. 5d. prompt, and 60s. 8d. a month; buyers, shade less.

Malleable Bars very firm, and buyers willing to pay any reasonable advance, but iron cannot be had. If the English makers show a disposition to draft off puddlers and millmen from their district, merchants here will immediately stop sending orders south, and will endeavour to get all their contracts postponed for a time.

Finished Iron maintains its price in this market, but ship-iron is less in demand, as shipbuilders have their contracts for the year negotiated, and it is too early yet to look for specifications for 1871 to any extent. The puddlers' strike continues with something like pertinacity, neither employers nor employed being disposed to bow to fate. This week notice has been given by the largest malleable firm in Scotland that if the puddlers do not return to work by the 25th inst., they will lock up their works, both at Motherwell and here; and if this does not effect a settlement of the dispute other firms will follow their example, thus the entire trade in manufactured iron in Scotland will be brought to a stand. The districts are already suffering from the effects of the strike, partial though it is. What will be the privations and sufferings while district will have to endure when every rolling mill and puddling-furnace in Scotland is at rest? Orders are leaving this district every day for the South. A monster meeting of puddlers, headed by a brass band, was held on Wednesday, in the Temperance Hall, Coatbridge, when a protest took place. Of course, the object was to produce an impression favourable to their case, but beyond impressing themselves with its importance no other impression was made. Mr. Cain, one of the leaders from the North of England, having been called to the chair, addressed the men at considerable length. He urged them to endeavour by all means to get the masters to settle the dispute by arbitration. To achieve this end, he proposed that a deputation should visit the various masters, and obtain answers from each individually. If this failed, the men should seek employment elsewhere; and the North of England masters, he alleged, had employment for a considerable number of extra hands. Various other speakers addressed the meeting, urging the men to continue steadfast, and victory would be certain, but the tone of the meeting was less commanding, and more conciliatory than those held previously. It is rumoured that Mr. Cain had an interview with the puddlers here to-day, and that he recommended them to resume work forthwith, and he would endeavour to see the whole of the makers of malleable iron in this district, to urge upon them the expediency of submitting the matter in dispute to arbitration. We are not sure that the masters will agree to this, but this close contact may lead to an arrangement of the difficulty, as the majority of the men are heartily sick of the present state of matters, and perhaps the employers are feeling much the same.

The moulders of engine castings, being generally skilled workmen, have made a demand for an advance of 2s. per week on their wages; and as the movement is a combined one, some concession will be required to their request. The moulders of pipes, railway-chairs, and the less artistic articles of the trade, are also included in those making the demand; it is, therefore, very evident that labour seems disposed to vigorously assert its right to regulate and control the profits of capital, if by any means it can attain it.

Shipping Coals maintain their demand, but prices are very elastic. The shipments show an aggregate of 37,715 tons for the week just

closed, against 22,885 tons in the corresponding week of last year. Best house coal seems to have no outlet beyond local demand, and prices are maintained, because the driblets could make no impression on the market either way. A brisk demand would bring down prices to effect a satisfactory business to any appreciable extent. The colliers employed at iron masters' pits have very generally received an advance of 6d. per day, which places them on a level with those working to the sale coalmasters.

The small estate of Cockstone, near Paisley, which contains fire-clay and other minerals, has been purchased by Mr. John Young, of Fulwood, for the sum of 430*l.*

Shipbuilders are all very busy, and we notice the launch of a hand-somely-fitted steam yacht for the Earl of Wilton, of 450 tons, old measurement.

The annual meeting of Young's Paraffin Light and Mineral Oil Company (Limited) was held on Wednesday, at the company's offices here, when a report by the directors, with the balance-sheets for the year ending April 30, was submitted. A profit of 83,316*l.* 14*s.* had been realised, from which there fell to be deducted several sums, for interest and deprecations on the works and pits, leaving for division a net sum of 47,112*l.* A dividend was declared at the rate of 10 per cent. per annum, and 250*l.* was placed to the credit of the fire insurance fund, leaving a balance of 7477*l.* 17*s.* 3*d.* to be carried forward.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

June 16.—The Iron Trade is rather quiet in South Staffordshire just now. The orders on hand are not of large amount, and as the end of the quarter approaches there is usually a slight disposition to hold back, so that there is a little less activity. If, however, the withholding of specifications is in any degree prompted by a hope of lower prices it is likely to be disappointed. Pig-Iron is rising. The Barrow hematite producers are asking 4*s.*, or an advance of 2*s.* 6*d.* per ton, and as the price of foreign pigs determine the rate in the district it is not unlikely that Staffordshire pigs will be stiffer. Best all mine hot-blast are now at from 3*s.* 15*s.* to 3*s.* 17*s.* 6*d.*, and 4*s.* is asked in some cases. With pig-iron at such prices finished iron cannot be produced at lower rates, and should the present hot weather last the marks will be reduced. Looking at the demand for rails, and the probability of more being wanted, it seems reasonable to hope for better prices next quarter. A new furnace has just been blown in at Tipton Green, and another now in course of erection at Dudley Port will soon be ready for work.

When the dreadful accident occurred at Talke, in North Staffordshire, the committee formed to provide for the relief of dependent survivors were, very properly, not satisfied with merely providing for the case, but desired to establish a fund for the purpose of forming the nucleus of a permanent fund to which miners should be invited to contribute, and thus entitle themselves and those dependent on them to certain specific benefits in case of death. In a letter to the *Staffordshire Advertiser* of Saturday, the Rev. Sir Lovelace Stamer, rector of Stoke-upon-Trent, who has taken a great interest in the question, writes to explain the position of the matter. It appears that with 150*l.* handed over by the leading members of the Miners' Union of this county on this occasion to address the older miners assembled on the state of affairs, and this meeting was remarkable for the number and character of the persons who delivered addresses. Mr. John Nixon, President of the Miners' Union, addressed the meeting. He stated that the balance-sheet showed an increase in the funds of the association over the previous year of 12371. 17*s.*, the balance in favour of the association being in March, 1870, 6500*l.*, against 5264*l.* in March, 1869. Besides the ordinary current expenditure during the year, there had been voted upwards of 800*l.* towards assisting other districts. Allusion was made by Mr. Nixon and others to the gambling which is carried on by some of the pitmen, and a hope was expressed that these remarks would lead to some reformation.

Mr. Burt made some remarks on the Mines Inspection Bill, which he considered, on the whole, to be worthy of their approval. He, however, regretted that the Government had not pushed the Bill more during the present session, while he admitted that many important and urgent matters had engaged the attention of Parliament. He also alluded to the Backworth strike, and condemned in strong terms the conduct of the masters in ejecting the men from their houses there; and his remarks on this head are so illogical and absurd that nothing but prejudice can account for them, in our opinion. He, however, advocated arbitration as a mode of settling all disputes between masters and servants, and as this mode has been resorted to with success in the iron trade there is no reason why it should not succeed equally well in the coal trade. Mr. McDonald also addressed the meeting, and spoke of his efforts in promoting the Mines Regulation Bill, now before Parliament. He pointed out what he considered defects in the Bill, but expressed his opinion that it will pass during the present session; but if not, they would get a better Bill next session. Amongst the defects of the Bill he said that the clause providing for the education of miners' children was omitted, and that the defective system of inspection which prevailed would not be remedied by the Bill.

A curious case came before the County Court Judge at Wolverhampton, on Tuesday. The *Birmingham Post* thus states the case:—Messrs. Jones and Jepson, of Wolverhampton, are contractors with the corporation of that town for the construction of certain sewage works. In the course of their excavations the other day they came upon some sand, and, as their contract provides that all earth not needed to fill up the trenches shall be carted away and disposed of by the contractors with all convenient speed, "they lost no time in selling the sand to a private customer. Now, though the land on which this discovery was made had been legitimately acquired by the corporation, the purchase did not include "mines and minerals," the property of which remained vested in the original owner—Mr. Lovidge. The latter accordingly laid claim to the sand as a mineral, and called upon the purchaser to pay its value to him, and not to the contractors, of whom he had obtained it. On half of the contractors, it was urged that the sand was not a mineral in the sense in which such deposits are distinguished from the land in which they occur, and that they were obliged by their specification to remove and dispose of it, or they would have been subject to a fine for stopping the work. It was further pointed out that, according to trade usage, the sinker employed to open a pit-shaft was entitled to everything he excavated, and the only difference between his work and that of the sewage contractors was that the former cut perpendicular and the latter horizontally. The Judge decided for the contractors, observing that if the owner of the freehold had any claim it was against the corporation who took the land, and not the contractor. [Some remarks on this subject will be found in a Leader Article of this day's Journal.]

The Dudley Correspondent of the *Wolverhampton Chronicle* writes:—

We are now far advanced in the quarter, and ere this fully expected more activity, but what improvement has taken place is far from being general. Prices for second-class productions are somewhat higher, but are even now far from being remunerative. First-class houses rigidly adhere to the list prices, but the orders received are of a comparatively meagre character, and, as a consequence, the proprietors have some difficulty in keeping their works in regular operation. Any person who will take the trouble to reconnoitre the district will find that there is anything but the general briskness which some would have us believe exists in the trade. The demand for pig-iron keeps very good. All mine, hot-blast, is realising from 3*s.* 15*s.* to 3*s.* 17*s.* 6*d.* per ton; cold-blast, 4*s.* 10*s.*, and in some instances 4*s.* 12*s.* 6*d.* per ton. There is but little, however, of the latter sort made in South Staffordshire. Grey forge and white forge, cinder pigs, and also ordinary melters are stiffening in prices, and are likely to do so, as the Scotch pigs are sufficiently high to prevent anything like competition with this district, which tends to confirm the idea that the producers of pig-iron in these localities will be enabled to command higher rates—a desideratum devoutly to be wished, for their scale of profits for many years past has been anything but satisfactory. The weekly produce of pigs in South Staffordshire and East Worcestershire is about 14,200 tons. This is not sufficient for the requirements of the district, especially when we take into account what is necessary for the various foundries as well as the whole of the mills and forges now in operation. Little has been done in the collieries during the week. The pits, however, are now at work again, and as the output is rather large the demand will soon be supplied. There is a growing enquiry for gubbin and white ironstone. The price of the former is 13*s.*, and of the latter 12*s.* 6*d.* per ton of 2240 lbs. When sold at long weight it is proportionately higher, according to the weight or number of pounds to the ton, as may be agreed upon by the purchaser, but there are some who decline to sell any other weight than the imperial standard.

The SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE OF MINING ENGINEERS have arranged to start upon their Belgian excursion on Saturday morning (June 18). The party will visit Antwerp, Brussels, Mons, Charleroi, Namur, and Liège, devoting nearly three days to the examination of the coal field, the distance across which is about 100 miles. There are 157 seams of coal, varying from 10 in. to 3 ft. in thickness, and it is said there are 120 workable seams in the Belgian coal field. The celebrated Coal shaft, at Viviers Rennis, near Gilley, is 1137 yards deep. The excursionists will return to London on Wednesday, June 29.

SOUTH MIDLAND INSTITUTE OF MINING, CIVIL, AND MECHANICAL ENGINEERS.

The annual meeting of this Institute was held on Monday, at the School of Art, Wolverhampton—Mr. HENRY BECKETT (Chairman) presiding. Amongst the members present were Mr. J. P. Baker (Her Majesty's Inspector of Mines for the district), Mr. E. Jones (mining engineer of the Lilleshall Company), Mr. James Cope (hon. sec.), T. Rose, S. Bowley, W. Blakemore, J. Randall (Ironbridge), D. W. Lees, John Foster, A. Bowley, H. F. Griffiths, W. Smith, J. W. Baker, C. Greene, J. Bromley, W. Parton, T. Hawkins, T. Price, J. Williams, B. Guy, and others.

On the motion of Mr. BAKER, seconded by the SECRETARY, the following gentlemen were elected members:—Messrs. James Slater, solicitor, Darlaston; G. B. Thorleycroft, Tettenhall Wood; R. S. Walker, Preston; Robert Turner, Wolverhampton; Edwd. Phillips, Deepfields; Joseph John, and Edwd. Hawkins, Wyrley; Thomas Fellows, Moxley; Thomas Millington, Wednesbury; Thomas Southam, Donnington; and Edward Shenton, Bilbrook. This election, the President remarked, would make the members a total of 123.

The PRESIDENT read the following communication which he had received from Mr. F. W. Gerhard, with whom he had had many interviews, and respecting whom the Secretary had received highly satisfactory letters:—

Wadham's Hill, Wolverhampton.

"Sir, I have briefly enumerated the nature of the experiments with which I have been engaged for some years past—in the metallurgy of iron.—1. A mode of desulphurising coke and desulphurising iron ore for the purpose of making

pig-iron from the materials produced in this country equal in purity to Swedish or Russian iron.—2. A most perfect system of combustion, whereby a saving of fuel in the production of iron of from 3*s.* to 5*s.* per cent. is economised.—3. A simple and inexpensive mode of converting pig-iron into wrought or malleable iron without the aid of puddling, the expense of which will not exceed 2*s.* per ton.—4. A smokeless furnace, the consumption of slack, which can be adapted to puddling or other purposes.—F. W. GERHARD."

Mr. Gerhard, the President explained, was unable to utilise his invention himself, and he (the President) thought it well to bring the subject before that meeting, in order that the members or their friends might have an opportunity of putting themselves into communication with the inventor, for the subjects spoken of were of great national importance.

The meeting adopted a minute of the last council meeting, which, owing to the rates requiring considerable revision, suggested the re-election of the officers of the past year, excepting only the President, from whom there was a notice on the paper calling the meeting, to the effect that he should nominate the Government Inspector of Mines as President in his stead.—The meeting adopted the minutes; and then Mr. BAKER proposed that Mr. Beckett should be desired to honour the Institute by continuing its President.—Mr. E. JONES seconded the selection of Mr. Beckett.

Mr. S. BOWLEY reminded Mr. Baker that, with Mr. Beckett's notice on the paper, the proposition had placed the meeting in somewhat of a dilemma. It was in every respect desirable, as Mr. Beckett had felt, that the Government Inspector of the district should be at the head of the Institute. The services which the representative of Government could render them in that capacity were very great; and he hoped that Mr. Baker would concede to Mr. Beckett's views, and take the head of the society. They were immediately indebted to Mr. Beckett for his services, and the head of the Institute, which he all well knew, was due to that gentleman. Of this there could not be a more striking proof than that furnished by the motion which contemplated the election of Mr. Baker to the post which had in every way been conspicuously graced by himself.

Mr. BAKER said he did not wish to embarrass the Institute, and, yielding to what was understood to be the best course to pursue, withdrew the proposition he had made.—Mr. BECKETT thanked Mr. Baker for thus making their course easy, and moved the resolution of which he had given notice.—It was seconded by Mr. BOWLEY, and adopted amidst applause.—Mr. BAKER, in responding, promised the customary inaugural address at the next meeting.

The Council were then desired to revise the rules, and report to a special general meeting to be called for the purpose.

Mr. BECKETT then made known that he and the hon. sec. had inspected Baggaridge Wood in connection with future explorations for coal, and Mr. F. Smith, Earl Dudley's agent, had promised to see him upon the subject.

He then stated that he had received a boulder of slate that had been found in the clay at Blakenall. The discovery demonstrated an exceptional state of things for South Staffordshire, and he and the hon. sec. had gone to the site. They found it to be a cutting in connection with the sewage operations of the thoroughfare. The works were evidently being carried through the fault which had been marked down as likely to exist thereabouts. The discovery was alike important and interesting. It defined the position of the fault, and formed a certain boundary in respect of new sinkings.

Mr. BAKER announced that he had seen Mr. Stokes, of Saredon. That gentleman thought that if he gave to the Institute the sections of the sinkings that he had made there he ought to be compensated. Mr. Stokes had no objection to a deputation from the Institute. Mr. Stokes had gone down 60 yards. He had got through the red ground, and stated that the last 20 yards were characterised by most favourable evidence.—Mr. Stokes fully believed that coal would be found at Saredon. The hon. sec. notified that he would have the committee to whom the matter was deputed conveyed to Saredon next Monday.

Mr. RANDALL, in reply, furnished information (the substance of which has already appeared in the *Miners Journal*) respecting the new sinkings at Market Drayton.—Mr. Beckett fervently hoped that their friends would get on prosperously with their undertaking for proving Sand

Notices to Correspondents.

VAN.—Holding, as I do, a large interest in this mine, may I venture to enquire of you what my real position is, and if when the new shares are fully paid they will rank *pari passu* with the existing issue, take the same dividend, and command the same value?—A SHAREHOLDER: *Maldon*.—[In reply to numerous enquiries of a similar character, it may be stated that at the end of the year, when the shares are fully paid, they will rank for dividend and command the same value as the existing issue.—ED. M. J.]

CRUSHERS AND STAMPS.—As there appears to be no work published containing detailed descriptions of the several kinds of crushers and stamps, both steam and rotary, used in Cornwall, I would suggest that it would be very interesting to those of your readers who have never had the opportunity of seeing them working if some of your Cornish correspondents would supply particulars of the kinds most commonly used, and the relative merits of each.—M. G. M.: *Bristol Ferry*.

THE LARGEST IRON WORKS IN ENGLAND AND WALES.—Can any of your correspondents inform me through your columns which is the largest iron works in England and Wales? I wish it to be understood that I refer to one single works, and not to one company of proprietors having works at different places several miles from one another.—J. B.: *Bristol Ferry*.

VOLUNTARY LIQUIDATORS—“X. Y. Z.”—There is no fixed rate of commission, charges, &c., allowed by law to the liquidators for winding-up voluntarily a limited company. By section 133 of the Act the company in general meeting must fix the remuneration to be paid to him, and by section 141 all costs, charges, and expenses properly incurred in the voluntarily winding-up of a company, including the remuneration of the liquidators, is to be paid out of the assets of the company in priority to all other claims.

LEAD MINING IN WALES.—We do not know of the East or West Van—there is a South Van.

CALIFORNIA—“T. F.” (Grass Valley).—The address of Col. O’Connor Sidney is not known. He has been in Paris during the past few weeks. When he returns to London will write.

NORTH CARADON.—We shall publish all the details when the proper time arrives. At present it would be premature.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, JUNE 18, 1870.

OWNERSHIP OF MINERALS FOUND IN EXCAVATION.

A subject of great importance to mining engineers and mineral owners, arising out of a claim to sand, has recently been tried in the Wolverhampton County Court. The point was, to whom certain sand met with during an excavation belonged—that is, whether to the landowner, who had licensed the town corporation of Wolverhampton to make the excavation for sewerage purposes, or to the contractors who, by virtue of their contract with the town corporation, had agreed “that all earth not needed to fill up the trenches shall be carted away and disposed of by the contractors with all convenient speed.” The learned judge who tried the case, after due consideration, adjudged in effect that the contractors were the absolute and beneficial owners of the sand excavated, and that the landowner was not entitled to claim either the sand or its value, from either the contractors or the persons to whom they had sold it.

It seems to us that the learned judge was quite right in his judgment; and although the grounds of such judgment are not before us, yet we think it is safely supported by several well recognised legal principles, the chief and obvious one being that as the landowner had licensed the excavation so he had also impliedly licensed all the usual ancillary powers and acts necessary to the due execution of his licence. What, we ask, would the landowner have said if, instead of valuable sand, barren earth or rock had been excavated, and he had been requested to cart it away from the works? We think his answer would have been a refusal; and that if he had vouchsafed any reasons he would have said, “I have indeed licensed the excavation, but I have not in any way contracted to clear away your rubbish.” Or, “I cannot find it; ‘tis not in the bond.” Or supposing the contractors had left the excavated earth on surface, would not the landowner have demanded its removal? We think he would, and that the law would have enforced his demand, if called on so to do.

As regards the contractors, they, doubtless, when making their estimates speculated at least upon getting rid of part of the mineral at easy terms, even if they did not contemplate making something handsome by it; for we have reason to know that in London sewer contracts, if there be no stipulation as to the gravel the contractors calculate upon it as part profits. But in the case before us what was there to prevent the contractors filling up the trenches with the sand instead of with the rubbish? Nothing. In such a case it is clear, even to concession, that the contractors would not have been liable to the landowner in damages for such an act. If we are right in this, then the contention of the landowner must be, and is, that the contractors might have destroyed the sand by filling up with it, but if they saved it they saved it for him, the landowner. Such a contention seems to us to border on the absurd.

In truth the landowner should, when granting his license, have reserved his right to the sand by a positive reservation, in which case the corporation would have varied their contract with their contractors, and the contractors would, in all probability, have varied their price in order to meet the new condition. As it is, the landowner’s default ought not in justice to work pecuniary loss to innocent contractors, and we rejoice to find that the learned judge has been able to resolve the above interesting point consonantly with, as it appears to us, equity to all parties.

WHAT MINERALS ARE LEFT IN THE OLD COAL FIELDS?

The solution of this query involves considerations of grave moment to very many readers of the Journal. These entertain very different views as to what yet remains to them. Their estimates partake of their respective idiosyncrasies. Are they men whose habit of mind is least marked by hopefulness, then they are inclined to regard the old districts as all but worked out. Are they of the cheery hope-on-hope-ever school, then they laugh at the forebodings of the doleful, and believe that in the old fields there is many a fortune yet to be made. These latter have our sympathy.

As in the agricultural operations of this country a good crop is not to be obtained by merely scratching the earth’s back with a plough, but by persistent deep furrowing; so the days of open workings and of shallow sinkings may have well nigh come to an end in the old colliery districts, and fortunes be now obtainable only, in many instances, by going over previously wrought ground. “Going over old ground, why we’ve been going over old ground for years, and, excepting what is under water, there’s hardly a bit of coal the size of a nutmeg left.” Thus we can imagine the colliery proprietors of the foreboding class responding to the cheery. Exactly, “excepting what is under water.” But why leave it under water? “Because I am not going to spend my money in draining my neighbour’s property,” he rejoins. And, then, still reluctant to believe that the future may in any respect worthily approach the past, he adds—“Besides, there is no certainty that what may be found will repay the cost.” Leaving the first objection for a moment, without denying that it has some extent of reason in its favour, let us make known what one of the foremost men in a notoriously old field has just said.

Last Monday the South Midland Institute of Mining, Civil, and Mechanical Engineers held their first annual meeting in Wolverhampton. At the dinner in the evening Mr. E. JONES, the mining engineer of the Lilleshall Company, of which it will be remembered Earl GRANVILLE is chief, speaking from his place as Vice-Chairman, made prominent allusion to the often-uttered assertion that Shropshire and South Staffordshire are within but a trifle of being irreversibly used up. He admitted that as they went on working they found a need—be for increased exertion in seeking further supplies, but denied that these exertions, when they were made thoughtfully and skilfully, were fruitless. On the contrary, he claimed for them that in notable instances they resulted in conspicuous success. One of the most recent was that in which old workings, for long years

flooded, had at length been drained, and were now yielding returns far surpassing those which accompanied the early winning.

But it is not merely to the releasing of submerged mines that the old districts have to look for a prolongation of their existence. Explorations over the acknowledged boundaries, and in doubtful spots within it, will yield much revenue to those who may make them. Upon this point we would again quote Mr. JONES. Taking the same line of argument that we are now adopting, that gentleman would have those mining engineers who, like himself, have to direct operations in old districts by no means despair of coming to fresh fields and pastures new. Citing the Granville winnings, and likewise the Stafford pits, he showed how, in respect of the first in particular, the Lilleshall Company continued to sink incessantly, night and day, for five years, against the views of nearly all the “authorities,” local and otherwise. Within six days of the time when their operations were strikingly ridiculed they came upon coal, splendid in quality, and so abundant in quantity that the Granville winnings and Stafford pits demonstrated that there was now in the possession of the Lilleshall Company alone enough fuel to supply all Shropshire throughout another century. Further, let it be borne in mind at how much less cost, as compared with former times, such explorations as those just noticed can now be carried on. Including interest of money, the Granville winnings—for which Mr. JONES must have the chief credit—cost the Lilleshall Company 60,000*l.* For that outlay it is claimed that a return will be secured even larger than that which will reward the expenditure of some 400,000*l.* at the Monkwearmouth pits, eminently judicious as that great outlay will prove to the courageous and enterprising proprietors who, when a quarter of a million of money had been spent without appreciable results, did not hesitate to follow up that sum with a further 150,000*l.*

They are the most experienced and the best informed who in every district are the most confident as to the future. Mr. JONES would have his fellow-engineers without despair in the old districts. And no less an authority than the present Chairman of the Ironmasters’ Association, Mr. RICHARD SMITH, the representative of the Earl of DUDLEY, in speaking in the Dudley Museum, on Tuesday, within only a few hours of the time at which Mr. JONES spoke in Wolverhampton, encouraged his auditory as to the future of that ancient mining ground, and stated that he was about that afternoon to confer with Mr. BECKETT, the ex-president of the South Midland Institute of Mining Engineers, as to the directions in which it was Mr. BECKETT’s opinion much valuable thick coal would be found—found, too, in a position which would go far to prove a connection between the South Staffordshire and the Shropshire fields. What, likewise, is to be said of the sinking through the Pernians of the Earl of DARTMOUTH’S Sandwell estate, about to be begun by a company comprised chiefly of mining engineers, located thereabouts, amongst whom, as amongst nearly all their fellows in that part of the kingdom, the conviction that coal is upon the spot, expressed by Sir RODERICK MURCHISON, is fully shared. With such facts as we have here sketched before them, let *Nil desperandum* animate the mine proprietors and mining engineers of the old coal fields.

RAILWAYS, AND SOUTH AUSTRALIAN MINES.

The enormous mineral wealth of the northern portion of the colony of South Australia has long been a matter of general remark, yet that wealth has been almost entirely beyond reach, in consequence of the insuperable difficulties of communication. The project of a railway from Port Augusta northward is again attracting considerable attention in Adelaide, and it may be hoped that the local Government will offer sufficient inducements to the promoters to ensure the subscription of English capital for the construction of the line. The *Chronicle* and *Mail* very truly remarks that the railway will enable the vast mineral wealth of the far North to be brought on reasonable terms to an export market. The great arid belt stretching northward from Port Augusta being bridged over, provisions can be moved up to the fertile pastures lying beyond; stock can be conveyed across the desert, and thus a second source of now undeveloped wealth be turned to good account. Seeing what the Blinman, under all its disadvantages, does already, sanguine anticipations appear justifiable. Meanwhile, it is of the utmost importance to place the mining interest in the most favourable condition possible. There should be no payment whatever to Government until a mine is proved to be remunerative, and then, perhaps, a small royalty upon profits would be the best plan. The latest advices from Adelaide announce the receipt of magnificent specimens of ore from Mount Lyndhurst Mine, some 20 miles beyond the proposed Great Northern Railway terminus, and every day furnishes additional evidence of the mineral wealth of the far North, and consequently of the facilities for a railway company to realise handsome profits.

That there is a great and growing disposition in Adelaide to encourage both railway and mining enterprise appears to be beyond question, and a more effectual means of augmenting the prosperity of the colony does not exist. An intelligent correspondent remarks that it has been the fashion to point to the gold fields of Victoria in explanation of the superior prosperity and activity of the sister colony, but that every man employed at the Moonta Mines adds more gold to the coffers of South Australia than is produced by the average of the entire gold digging population of Victoria, and that quite irrespective of the hands into which the profits of the mine may fall. It is undeniable, he continues, that the country north of Port Augusta abounds in minerals of high quality; the geological formation renders necessary the employment of capital in large sums to develop permanent mines; but the expense, and at times entire cessation of means of transit, are fatal to any great extension of operations northwards. It seems, however, to be admitted, both in South Australia and here, that the line should and must be made, and the sooner it is made the sooner will date the revival of prosperity in the colony.

LEAD MINING IN SHROPSHIRE.

The success which has attended the more vigorous development of the mineral resources of Shropshire has not a little surprised the general public, who, however, are now awakening to the fact that the lead deposits of the county are second to none in the kingdom, while daily experience confirms the opinion that the prosecution of works to greater depths will prove them to be even superior to their long-celebrated neighbours of Cardiganshire and Montgomeryshire.

The mineral-bearing district of Shropshire is limited in extent, being only about twelve miles long by six miles wide; but this small area embraces a series of mines which taken collectively may, owing to their great and continued productiveness, be said to stand without parallel. Foremost amongst these mines is the one now known as Tankerville, a mine which for years has been the admiration of those conversant with the locality; and now, under new management, and with increased facilities for working, is literally astonishing the mining world by its great returns, entirely the produce of one lode, which, running nearly east and west, and varying in width from 20 to 50 ft., yields an amount of lead ore per fathom ever increasing with the depth of the levels, from 3 tons in the 42 fm. level to 30 tons in the 92 fm. level.

Tankerville cannot be called so enormous a sett, consequently it would be unjust to suppose that the productiveness of the main lode can be confined within its boundaries; in fact, superficial indications plainly show that the lode continues to course to the east in its full strength, and of the same masterly character, accompanied by several others, well known to be productive, of like formation, and running parallel to itself.

The ground into which these lodes penetrate immediately on leaving Tankerville has, during the past week, been secured by influential parties, who purpose losing no time in proving the value of a property that may fairly be deemed to contain the identical elements which, but a few fathoms removed, have contributed to form one of the grandest successes of modern mining.

For the rapid and thorough development of East Tankerville Mine will be secured all the advantages derivable by eminent scientific direction, seconded by sound local knowledge and able management, and the employment of such material influences as it may be found advisable to bring to bear, with a view of insuring for the undertaking a prosperous future. The prospectus and plans of the East Tankerville Mining Company (Limited) will at an early date be

brought before the notice of the public, who will then be invited to co-operate in working what has been described by an able authority as “the choicest piece of virgin mineral ground in Shropshire.”

COAL-CUTTING BY MACHINERY.

The majority of the coal-cutting machines hitherto introduced have been designed to imitate the process of hewing, as performed by hand labour in driving an ordinary heading, and although considerable difficulty has been experienced in getting them to work satisfactorily, sufficient has been done to prove that whilst in difficult cases hand labour will perform a larger amount of work than the machine, and cannot, therefore, be replaced, there are many cases in which the machine is decidedly economical. From the specification of the recent patent of Mr. ANDREW KNOWLES, of Pendlebury, Manchester, it appears that he proposes to use hand labour for driving the leading headings and machine to undercut the pillars left. His improvements consist in the use and application of an oscillating metallic blade or bar, containing cutters or teeth, which act on the coal, so as to cut a groove or channel of any required thickness, depth, or length near the bottom of the bed of coal, either on the end or face of the mine, so as to facilitate the getting of the coal. The said blade or bar may be fixed in a frame, or supported at each end on a sliding block or bar, and maintained in a state of tension by a weight or spring, if required, or by a piston acting on compressed air in a cylinder. By preference the blade or bar contains numerous slots, in which are fixed the cutters, by means of a key or wedge adapted to each cutter, so as to allow of the cutters being exchanged or sharpened as desired.

The sliding blocks or bars, to which the cutting blade or bar is attached, are each supported on a moveable carriage, situate on each side of the seam or bed of coal to be operated upon; and the said carriages lie on tramways, or other suitable appliances, so that they may move at the same rate as the coal is being cut. One of the carriages has fixed upon it an engine actuated by steam, air, or water, to give the necessary motion to the apparatus, and the pressure required by the cutters against the coal is given and regulated by the action of weights or springs acting on levers or pulleys, or both, through the agency of bands, rods, or chains, or by toothed wheels, or by one or more combinations of the worm and wheel.

When the apparatus is to be put in operation the cutting edge of the blade is brought up to the coal, and by the oscillating action given to it by the apparatus the required groove in the coal is cut, thereby enabling the miner to get the coal with greater facility and with less chance of accident to himself, and allowing the coal to be mined with less waste than usual. It will be understood from the description that the inventor really uses a bow-saw, so that his assertion that there will be less waste than usual will create no surprise; indeed, such a machine as that of Mr. Knowles need not reduce a quarter of an inch thickness of coal to small, and in some of Messrs. Knowles’s mines it would, doubtless, ensure additional safety, as they have some very bad roofs to deal with. The machine is especially adapted to the Lancashire system of long work, which may be described as standing midway between long wall and pillar and stall, being much like pillar and stall working, with the pillars the same width, but ten times the depth.

COAL MINING IN NORTH WALES.

Business in most of the colliery districts is now very fair for the season, the tonnage going to Chester and Birkenhead being of an average character. At the HANMER COLLIERIES, where a large feeder of water was recently tapped, and in order to prevent it from over-powering the engine dams had to be put in for the purpose of excluding it—a work of no ordinary character—they have been completed, and the men are now driving out to reach the lower seam of coal.

At the MOSTYN COLLIERIES a moderate trade is being done, and it is understood that blast-furnaces will shortly be erected near the pits, for the purpose of smelting the valuable hematite ore which was formerly worked near Talgarth, up to about three years ago. At that time it had to be carted for shipment to Mostyn, at a cost of about 3*l.* per ton; but as a line of railway runs rather close to the stone it could be conveyed to the furnaces, it is believed, at about 1*l.* per ton. The great interest which has been shown in the sinking by means of pneumatic power, and in diving-bell suits at Bagin, may be said to have been brought to a close. Having got through the sand and gravel on to solid material, at a depth of about 30 yards, the pneumatic tubes have been taken out, and pumps for getting the water out are about to be put down. It is now believed that the most serious difficulties have been overcome, and that the work of sinking will be proceeded with in an expeditious and satisfactory manner. The colliery will be about the largest in the kingdom, being fully 20 ft. clear in diameter, and the bed of coal to be worked the well-known Five yard seam.

At the BAGILST COLLIERIES, which is now under the management of Mr. Gildersley, of Queensferry, a good deal of both coal and clay is being raised, the latter being of a fine quality, and got at the same time as the coal at Flint Marsh; also a moderate business is being done *via* the London and North-Western Railway, with which the colliery is connected.

The collieries in the Mold district are now doing about an average trade for the season. At COPA both ordinary and cannel coal is being raised, and the owners, the Messrs. Thompson, of Runcorn, are applying for extra ground, and which from the high reputation of the firm there is little doubt will be granted by the lessees, the lords of Mold, we believe. There are some extensive oil works close to the pits, which use a considerable quantity of cannel, which is of a fine quality. The BRON COED COLLIERIES is finding employment for a large number of men, and is sending a good deal of coal to Birkenhead for shipment from there. At BROMFIELD HALL the water having corroded the boilers new ones have had to be fixed in place of the old ones, and they have put down new ones, so as to get a different supply of water.

Several of the collieries in the Buckley district are now looking more promising than for some time past, and with the transit facilities which will shortly be in operation the locality promises to become a really important one. At ASTON HALL, of which Mr. Gladstone, the premier, is the lessor, a moderate business in coal is being done. A large quantity of capital clay is also being raised, for which there are extensive works for converting into bricks, tiles, &c., and for which there is a very good demand. The SPON GREEN COLLIERIES is working steadily, supplying the leading brick and tile works in the neighbourhood, of which there are several very extensive ones. It is expected that the seam being worked will be reached by drifting through in another part of the land.

In the neighbourhood of Queensferry the collieries continue to be kept very fairly going. At the PRESTATYN COLLIERIES, which was very successfully sunk under the immediate superintendence of the manager, Mr. Gildersley, a rather bad trade is being done. The coal has just been analysed by Mr. W. B. M’Allister, of Liverpool, and the results have been highly satisfactory. The sample sent produced 270 per cent. per cwt. of cinder, 11*1/2* lbs., or 1*1/2* per cent. of ash per cwt., the stowage being 48 cubic feet space required per ton of coal. For marine purpose, Mr. M’Allister says it is of No. 1 quality. At the QUEENSFERRY COLLIERIES, belonging to Messrs. Thompson, the two shafts have been got down, and the cages are now being put down, and the levels are being driven out.

In the Wrexham district there is not much change to be noticed in the business doing, which is of a very fair character for the summer season. The CAPELTON COLLIERIES is about to change hands, some of the elder members of the firm being desirous of retiring. At the SANDCROFT IRON WORKS, near Queensferry, owing to the extension of mining operations in the locality, a good business is being done. A large quantity of machinery is also being exported from the establishment, which has long been noted in the district, and from which the unfortunate Royal Charter was launched.

DEFECTIVE BOILER FLUES.—Mr. PETER HIGSON, Government Inspector of Mines, has written as follows upon a recent explosion:—

“The flue of one of the steam boilers of the Holme House Colliery, near Wigton, belonging to Mr. Ralph Rimmer, suddenly collapsed when the men were absent. If the works had been in full operation the loss of life might have been serious. The flue was 3 ft. diameter, and made of 7-16 in. plates, which were in apparently good condition. The average pressure was under 50 lb. on the square inch. The flue had no inner or outer rings or straps of any kind to prevent collapse. No boiler flue that has to bear high pressure steam should exceed 3 ft. 8 in. in diameter, and even then it should have rings outside, at the distance of 4*1/2* ft., or at every other point, of angle or T-iron. It is to be hoped that this will be a warning to others.”

THE MINERAL RESOURCES OF RUSSIA.—Although the mineral resources of Russia are known to be enormous, and such names as Demidoff enjoy an almost universal reputation, comparatively little is known concerning the individual districts; the publication, therefore, of a concise treatise on the “Russian Metallurgical Works, Iron, Copper, and Gold,” by one so well acquainted with the subject as Mr. HERBERT BARRY, is a matter for congratulation, since the *Moncivite* empire undoubtedly affords a large field for the profitable investment of capital in mining and metallurgical enterprise, and Mr. Barry’s book appears to furnish precisely the kind of information which the capitalist should possess. Concerning the record to the present time, the industrial position of Russia, so far as regards its metallurgical works, is extremely low, yet the opinion that will be formed from reading Mr. Barry’s book is that many of them, if they could be purchased at their present value, and developed with English capital and skill, would prove highly remunerative, but that their purchase at a

nominal price (unless the payment be entirely dependent upon profits to be realised, in which case somewhat larger liberality might be exercised) is absolutely essential to success. The quality of the ores seems to be excellent, and labour is cheap, but the works appear to be of excessive size, as a rule, considering the quantity of fuel at command. Mr. Barry is careful to explain the relative merits of the several districts and works, and to suggest means for bringing them into profitable working order. The work, which is published by Mr. Ellingham Wilson, of the Royal Exchange, contains an abundance of valuable facts, and should be carefully studied by all who propose to embark in industrial enterprise in Russia. The book will be more fully noticed in a future issue.

TRADE OF THE TYNE AND WEAR.

June 16.—A most seasonable arrival of vessels in the North-Eastern ports during the last week has occasioned a fair amount of business in most branches of the coal, iron, and timber trades. There have been large deliveries of timber at Tyne Dock and other places for colliery and other purposes, and of esparto grass, for paper-making, while the exports of coal, iron, and machinery have been on a good scale, if not quite up to the very large quantities sent away weekly lately. The exports of coal during May show a large increase at all the leading North-Eastern ports, the total in May having been 561,890 tons, as compared with 438,953 tons in May, 1869. The quantity of coke sent away abroad was also considerably above the quantity sent in May last year. The quantity of coal and coke sent coastwise does not differ materially from the quantity sent in May, 1869.

THE BACKWORTH STRIKE.—A number of men arrived at this place from Wolverhampton on Wednesday week, having been engaged to fill up the places of those who had got work at other collieries in the district. About 100 arrived, mostly young men; and as is often the case when these migrations take place, they are, at least the majority of them appear to be, wrong sort of fellows, rather more intent on amusement and frolic than real hard work. However, they were well received at Backworth, and no doubt many of them will learn to work thin seams of coal, and settle here permanently. It is certainly very creditable to the old hands that they have shown no bad feeling, and it is not likely that any disturbances will take place on account of their introduction.

Another dispute, of a serious character, is now apprehended at Barradon Colliery. At these extensive works, where it will be recollect that a most serious explosion occurred a few years ago, the men have given notice (the usual monthly notice) that they wish to have an advance of 2d. per ton. This notice was given on June 7, and it is feared at present that when this notice expires, on July 7, a strike may take place, but this may possibly be prevented. It is stated that the men at the Barradon Works, where a large number are employed, are earning large wages. This is, indeed, a fact which cannot be disputed; however, it appears that a section of the men have determined to attempt to get an advance.

On Monday last the annual pic-nic of the Northumberland miners was held on the seashore, near Blyth. An immense number of miners, their families, and friends, attended the gathering, not less than 15,000 persons being supposed to have been present. No less than twelve musical bands attended, and their performances conduced much to the enjoyment of the people. Although the gathering is not supposed to be arranged for the consideration of business matters, but more of the character of a social gathering, yet it is a custom for the leading members of the Miners' Union of this county on this occasion to address the older miners assembled on the state of affairs, and this meeting was remarkable for the number and character of the persons who delivered addresses. Mr. John Nixon, President of the Miners' Union, addressed the meeting. He stated that the balance-sheet showed an increase in the funds of the association over the previous year of 12371. 17s., the balance in favour of the association being in March, 1870, 65000L, against 52641. in March, 1869. Besides the ordinary current expenditure during the year, there had been voted upwards of 800L towards assisting other districts. Allusion was made by Mr. Nixon and others to the gambling which is carried on by some of the pitmen, and a hint was expressed that these remarks would lead to some reformation. Mr. Hart made some remarks on the Mines Inspection Bill, which he considered, on the whole, to be worthy of their approval. He, however, regretted that the Government had not pushed the Bill more during the present session, while he admitted that many important and urgent matters had engaged the attention of Parliament. He also alluded to the Backworth strike, and condemned in strong terms the conduct of the masters in ejecting the men from their houses there; and his remarks on this head are so illogical and absurd that nothing but prejudice can account for them, in our opinion. He, however, advocated arbitration as a mode of settling all disputes between masters and servants, and as this mode has been resorted to with success in the iron trade there is no reason why it should not succeed equally well in the coal trade. Mr. McDonald also addressed the meeting, and spoke of his efforts in promoting the Mines Regulation Bill, now before Parliament. He pointed out what he considered defects in the Bill, but expressed his opinion that it will pass during the present session; but, if not, they would get a better Bill next session. Amongst the defects of the Bill he said that the clause providing for the education of miners' children was omitted, and that the defective system of inspection which prevailed would not be remedied by the Bill.

REPORT FROM SCOTLAND.

June 15.—The market for Pig-Iron has been very active all the week, but has fluctuated considerably. On Friday quotations dropped to 59s. 9d. cash, then rallied to 60s. On Monday the opening was easier, and after 60s. had been paid there was a fall to 59s. 9d., and a rally to 60s. at the close, with heavy buying. Those outside the trade, who are buying up makers' stock of pigs, and sending them into store at the present rate of 1600 tons a day, mean something; and, although they deny all intentions of "rigging" the market, there are grave fears entertained here that if this game is persisted in the market will get "rigged," and serious losses will have to be borne by somebody. Yesterday, 60s. 6d. cash, and 60s. 9d. a month, were the ruling quotations, declining on late 'Change to 60s. cash, and 60s. 9d. a month. This morning the market was quiet, and 59s. 10d. cash was taken: afterwards 60s. cash, and 60s. 4d. was paid; closing, sellers, at these prices, buyers 1d. per ton less. Coltness, No. 1, 68s.; Gartsherrie, 67s. 6d.; Shoots and Langloan, 62s.; Eglington, 60s.; No. 1, g.m.b., 60s.; No. 3, 58s. 6d. Market sensitive and variable. The shipments of pig-iron from the Scotch ports for the week just ended amounted to 12,730 tons, against 11,890 tons in the corresponding week of last year, which makes the increase on the year to date amount to 24,620 tons. The increase in the imports from Middlesbrough for 1870 is close on 9500 tons, with contracts for heavier deliveries during the remaining months of the year.

June 16.—To-day business in Pig-Iron was more animated, and a large quantity of "warrants" were paid for and removed from the market, which is, perhaps, as conclusive proof as we can have that a "rig" is impending. The price paid this forenoon was 60s. to 60s. 2d. cash, and 60s. 3d. to 60s. 6d. thirty days. In the afternoon business was done at 60s. 4d. prompt, 60s. 5d. ton days, and 60s. 7d. a month; closing, sellers, 60s. 5d. prompt, and 60s. 8d. a month; buyers a shade less.

Malleable Bars very firm, and buyers willing to pay any reasonable advance, but iron cannot be had. If the English makers show a disposition to draft off puddlers and millmen from their district, merchants here will immediately stop sending orders south, and will endeavour to get all their contracts postponed for a time.

Finished Iron maintains its price in this market, but ship-iron is less in demand, as shipbuilders have their contracts for the year negotiated, and it is too early yet to look for specifications for 1871 to any extent. The puddlers' strike continues with something like pertinacity, neither employers nor employed being disposed to bow to fate. This week notice has been given by the largest malleable firm in Scotland that if the puddlers do not return to work by the 25th inst., they will lock up their works, both at Motherwell and here; and if this does not effect a settlement of the dispute other firms will follow their example, thus the entire trade in manufactured iron in Scotland will be brought to a stand. The districts are already suffering from the effects of the strike, partial though it is. What will be the privations and sufferings while district will have to endure when every rolling-mill and puddling-furnace in Scotland is at rest? Orders are leaving this district every day for the South. A monster meeting of puddlers, headed by a brass band, was held on Wednesday, in the Temperance Hall, Coatbridge, when a procession took place. Of course, the object was to produce an impression favourable to their case, but beyond impressing themselves with its importance no other impression was made. Mr. Cain, one of the leaders from the North of England, having been called to the chair, addressed the men at considerable length. He urged them to endeavour by all means to get the masters to settle the dispute by arbitration. To achieve this end, he proposed that a deputation should visit the various masters, and obtain answers from each individually. If this failed, the men should seek employment elsewhere; and the North of England masters, he alleged, had employment for a considerable number of extra hands. Various other speakers addressed the meeting, urging the men to continue steadfast, and victory would be certain, but the tone of the meeting was less commanding, and more conciliatory than those held previously. It is rumoured that Mr. Cain had an interview with the puddlers here to-day, and that he recommended them to resume work forthwith, and he would endeavour to see the whole of the makers of malleable iron in this district, to urge upon them the expediency of submitting the matter in dispute to arbitration. We are not sure that the masters will agree to this, but this close contact may lead to an arrangement of the difficulty, as the majority of the men are heartily sick of the present state of matters, and perhaps the employers are feeling much the same.

The moulders of engine castings, being generally skilled workmen, have made a demand for an advance of 2s. per week on their wages; and, as the movement is a combined one, some concession will require to be made to their request. The moulders of pipes, railway-chairs, and the less artistic articles of the trade, are also included in those making the demand; it is, therefore, very evident that labour seems disposed to vigorously assert its right to regulate and control the profits of capital, if by any means it can attain it.

Shipping Coals maintain their demand, but prices are very elastic. The shipments show an aggregate of 37,715 tons for the week just

closed, against 22,885 tons in the corresponding week of last year. Best house coal seems to have no outlet beyond local demand, and prices are maintained, because the driblets could make no impression on the market either way. A brisk demand would bring down prices to effect a satisfactory business to any appreciable extent. The colliers employed at iron-masters' pits have very generally received an advance of 6d. per day, which places them on a level with those working to the sale coal-masters.

The small estate of Gockstone, near Paisley, which contains fire-clay and other minerals, has been purchased by Mr. John Young, of Fulwood, for the sum of 4390L.

Shipbuilders are all very busy, and we notice the launch of a hand-somely-fitted steam yacht for the Earl of Wilton, of 450 tons, old measurement.

The annual meeting of Young's Paraffin Light and Mineral Oil Company (Limited) was held on Wednesday, at the company's offices here, when a report by the directors, with the balance-sheets for the year ending April 30, was submitted. A profit of 85,316L 14s. had been realised, from which there fell to be deducted several sums, for interest and deprecations on the works and pits, leaving for division a net sum of 47,112L. A dividend was declared at the rate of 10 per cent. per annum, and 2500L was placed to the credit of the fire insurance fund, leaving a balance of 7477L 17s. 3d. to be carried forward.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

June 16.—The Iron Trade is rather quiet in South Staffordshire just now. The orders on hand are not of large amount, and as the end of the quarter approaches there is usually a slight disposition to hold back, so that there is a little less activity. If, however, the withholding of specifications is in any degree prompted by a hope of lower prices it is likely to be disappointed. Pig-iron is rising. The Barrow hematite producers are asking 4L, or an advance of 2s. 6d. per ton, and as the price of foreign pigs determine the rate in the district it is not unlikely that Staffordshire pigs will be stiffer. Best all mine hot-blast are now at from 3L 15s. to 3L 17s. 6d., and 4L is asked in some cases. With pig-iron at such prices finished iron cannot be produced at lower rates, and should the present hot weather last the market will be reduced. Looking at the demand for rails, and the probability of more being wanted, it seems reasonable to hope for better prices next quarter. A new furnace has just been blown in at Tipton Green, and another now in course of erection at Dudley Port will soon be ready for work.

When the dreadful accident occurred at Talke, in North Staffordshire, the committee formed to provide for the relief of dependent survivors were, very properly, not satisfied with merely providing for the case, but desired to establish a fund for the purpose of forming the nucleus of a permanent fund to which miners should be invited to contribute, and thus entitle themselves and those dependent on them to certain specific benefits in case of death. In a letter to the *Staffordshire Advertiser* of Saturday, the Rev. Sir Lovelace Stamer, rector of Stoke-upon-Trent, who has taken a great interest in the question, writes to explain the position of the matter. It appears that with 1500L handed over by the Mansion House Committee 3000L was available for the proposed benefit society. Rules have been carefully prepared, and after consulting Mr. Neison, of Great James's-street, Bedford-row, London, the committee are able with full confidence to offer that for a payment of 2d. weekly a married man, in case of his death by accident in or about coal and ironstone mines, can secure for his widow 4s. a week for the first five years, and 2s. for the second five years, and for each child under age 2s. a week, while in case of his own disablement through accident he will receive 6s. a week for the first five years, or for such portion of five years as the disablement lasts, and if the disablement should continue longer than 2s. a week for such further time as he is unable to follow his employment. Sir Lovelace acknowledges that the miners do not show any great desire to avail themselves of the benefits thus offered to them, but some progress is being made, and he adds:—"One thing is certain, I think. When the public are made aware that for a weekly contribution of 2d. such provision as I have named can be made by the well-paid colliers and ironstone workers of this district for themselves, their wives, and children they will hasten before they contribute for their relief on the occurrence of great accidents as they have done hitherto." It is a matter of regret that at present the miners in South Staffordshire are making very little progress towards raising the 500L which will entitle them to a similar disposal of that part of the balance of the Hartley Fund which was assigned to the district.

A curious case came before the County Court Judge at Wolverhampton, on Tuesday. The *Birmingham Post* still states the case:—Messrs. Jones and Jepson, of Wolverhampton, contractors with the corporation of that town for the construction of certain sewage works. In the course of their excavations the other day they came upon some sand, and, in their contract provides that all earth not needed to fill up the trenches shall be carted away and disposed of by the contractors with all convenient speed; they lost no time in carting the sand to a private customer. Now, though the land on which this discovery was made had been legitimately acquired by the corporation, the purchase did not include "mines and minerals," the property of which remained vested in the original owner, Mr. Lovelace. The court accordingly laid claim to the sand as a mineral, and called upon the purchaser to pay its value to him, and not to the contractors, of whom he had obtained it. On behalf of the contractors, it was argued that the sand was not a mineral in the sense in which such deposits are distinguished from the land in which they occur, and that they were obliged by their specification to remove and dispose of it, or they would have been subject to a fine for stopping the work. It was further pointed out that, according to trade usage, the sinker employed to open a pit-shaft was entitled to everything he excavated, and the only difference between his work and that of the sewage contractors was that the former cut perpendicular and the latter horizontally. The Judge decided for the contractors, observing that if the owner of the freehold had any claim it was against the corporation who took the land, and not the contractor. (Some remarks on this subject will be found in a Leader Article of this day's *Journal*.)

The Dudley Correspondent of the *Wolverhampton Chronicle* writes:—

We are now far advanced in the quarter, and ere this fully expected more activity, but what improvement has taken place is far from being general. Prices for second-class productions are somewhat higher, but are even now far from being remunerative. First-class houses rigidly adhere to the list prices, but the orders received are of a comparatively meagre character, and, as a consequence, the proprietors have some difficulty in keeping their works in regular operation. Any person who will take the trouble to reconnoitre the district will find that there is anything but the general briskness which some would have us believe exists in the trade. The demand for pig-iron keeps very good. All mine, hot-blast, is realising from 3L 15s. to 3L 17s. 6d. per ton; cold-blast, 4L 10s., and in some instances 4L 12s. 6d. per ton. There is but little, however, of the latter sort made in South Staffordshire. Grey forge and white forge, cylinder pigs, and also ordinary melters are stiffening in prices, and are likely to do so, as the Scotch pigs are sufficiently high to prevent anything like competition with this district, which tends to confirm the idea that the producers of pig-iron in these localities will be enabled to command higher rates—a desideratum devoutly to be wished, for their scale of profits for many years past has been anything but satisfactory. The weekly produce of pigs in South Staffordshire and East Worcestershire is about 14,200 tons. This is not sufficient for the requirements of the district, especially when we take into account what is necessary for the various foundries as well as the whole of the mills and forges now in operation. Little has been done in the collieries during the week. The pits, however, are now at work again, and as the output is rather large the demand will soon be supplied. There is a growing enquiry for gubbin and white ironstone. The price of the former is 1s., and of the latter 1s. 6d. per ton of 2240 lbs. When sold at long weight it is proportionately higher, according to the weight or number of pounds to the ton, as may be agreed upon by the purchaser, but there are some who decline to sell any other weight than the imperial standard.

The **SOUTH STAFFORDSHIRE AND EAST WORCESTERSHIRE INSTITUTE OF MINING ENGINEERS** have arranged to start upon their Belgian excursion on Saturday morning (June 18). The party will visit Antwerp, Brussels, Mons, Charleroi, Namur, and Liège, devoting nearly three days to the examination of the coal field, the distance across which is about 100 miles. There are 157 seams of coal, varying from 10 in. to 3 ft. in thickness, and it is said there are 120 workable seams in the Belgian coal field. The celebrated Coal shaft, at Viviers Rémissis, near Gilley, is 1137 yards deep. The excursionists will return to London on Wednesday, June 29.

SOUTH MIDLAND INSTITUTE OF MINING, CIVIL, AND MECHANICAL ENGINEERS.

The annual meeting of this Institute was held on Monday, at the School of Art, Wolverhampton—Mr. HENRY BECKETT (Chairman) presiding. Amongst the members present were Mr. J. P. Baker (Her Majesty's Inspector of Mines for the district), Mr. James Cope (hon. sec.), T. Rose, S. Bowley, W. Blakemore, J. Randal (Ironbridge), D. W. Lee, John Foster, A. Bowley, H. F. Griffiths, W. Smith, J. W. Baker, C. Greene, J. Bromley, W. Parton, T. Hawkins, T. Price, J. Williams, B. Guy, and others.

On the motion of Mr. BAKER, seconded by the SECRETARY, the following gentlemen were elected members:—Messrs. James Slater, solicitor, Darlaston; G. B. Thorneycroft, Tettenhall Wood; R. S. Walker, Preston; Reuben Turner, Wolverhampton; Edwd. Phillips, Deepfields; Joseph, John, and Edwd. Hawkins, Wyre; Thomas Fellows, Moxley; Thomas Millington, Wednesbury; Thomas Southam, Donnington; and Edward Shenton, Bilbrook. This election, the President remarked, would make the members a total of 123.

The **PRESIDENT** read the following communication which he had received from Mr. F. W. Gerhard, with whom he had had many interviews, and respecting whom the members had received highly satisfactory letters:—

Wadham's Hill, Wolverhampton.

"Sir.—I have briefly enumerated the nature of the experiments with which

I have been engaged for some years past—in the metallurgy of iron.—1. A mode of desulphurising coke and desulphurising iron ore for the purpose of making

pig-iron from the materials produced in this country equal in purity to Swedish or Russian iron.—2. A more perfect system of combustion, whereby a saving of fuel in the production of iron of from 30 to 50 per cent. is economical.—3. A simple and inexpensive mode of converting pig-iron into wrought or malleable iron without the aid of puddling, the expense of which will not exceed 2s. per ton.—4. A smokeless furnace, the consumption of slack, which can be adapted to puddling or other purposes.—F. W. GERHARD."

Mr. Gerhard, the President explained, was unable to utilise his invention himself, and he (the President) thought it well to bring the subject before that meeting, in order that the members or their friends might have an opportunity of putting themselves into communication with the inventor, for the subjects spoken of were of great national importance.

The meeting adopted a minute of the last council meeting, which, owing to the rate requiring considerable revision, suggested the re-election of the officers of the past year, excepting only the President, from whom there was a notice on the paper calling the meeting, to the effect that he should nominate the Government Inspector of Mines as President in his stead.—The meeting adopted the minutes; and then Mr. BAKER proposed that Mr. Beckett should be desired to honour the Institute by continuing its President.—Mr. E. JONES seconded the selection of Mr. Beckett.

Mr. S. BOWLEY reminded Mr. Baker that, with Mr. Beckett's notice on the paper, the proposition had placed the meeting in somewhat of a dilemma. It was in every respect desirable, as Mr. Beckett had felt, that the Government Inspector of the district should be at the head of the Institute. The services which the representative of Government could render them in that capacity were very great; and he hoped that Mr. Baker would concede to Mr. Beckett's wish, and take the head of the society. They were all immensely indebted to Mr. Beckett for the assistance, and the counsel, and the professional knowledge with which he had advanced the interests of the Institute, which they all well knew were dear to that gentleman. Of this there could not be a more striking proof than that furnished by the motion which contemplated the election of Mr. Baker to the post which had in every way been conspicuously graced by himself.

Mr. BAKER said he did not wish to embarrass the Institute; and, yielding to what was undoubtedly to be the best course to pursue, withdrew the proposition he had made. Mr. BECKETT thanked Mr. Baker for thus making their course easy and moved the resolution of which he had given notice.—It was seconded by Mr. BOWLEY and adopted amidst applause.—Mr. BAKER, in responding, proposed the customary inaugural address at the next meeting.

The Council were then desired to revise the rules, and report to a special general meeting to be called for the purpose.

Mr. BECKETT then made known that he and the hon. sec. had inspected Baggaridge Wood in connection with future explorations for coal, and Mr. F. Smith, Earl Dudley's agent, had promised to see him upon the subject. He then stated that he had received a boulder of slate that had been found in the clay at Blakenall. The discovery demonstrated an exceptional state of things for South Staffordshire, and he and the hon. sec. had gone to the *situ*. They found it to be a cutting in connection with the sewerage operations of the borough. The works were evidently being carried through the fault which had been marked down as likely to exist thereabouts. The discovery was alike important and interesting. It defined the position of the fault, and formed a caution-boundary in respect of new sinkings.

Mr. BAKER announced that he had seen Mr. Stokes, of Saredon. That gentleman thought that if he gave the Institute the sections of the sinkings that he had made there he ought to be compensated. Mr. Stokes had gone down 60 yards. He had got through the red ground, and stated that the last 20 yards were characterised by most favourable evidences. Mr. Stokes fully believed that coal would be found at Saredon.—The hon. sec. was told that he would have the committee to whom the matter was deposited conveyed to Saredon next Monday.

Mr. RANDALL, in reply, furnished information (the substance of which has already appeared in the *Minning Journal*) respecting the new sinkings at Market Drayton.—Mr. Beckett fervently hoped that their friends would go on prosperously with their undertaking for proving Sandwell Park, where he had every confidence that they would find the thick coal. Not (the reply to Mr. Bowley he added) in solid, but split up, in which condition it was more valuable, inasmuch as it could be worked with more economy. The hon. sec. believed that they would find the coal, but at 700 yards probably.—The GOVERNMENT INSPECTOR: Why, not at 1000 yards? If they have increased the depth from over 500 to 500, and you say it will not be found under 700 yards, to advance 1000 yards would be only a step.

On the motion of Mr. BOWLEY, seconded by the GOVERNMENT INSPECTOR, and amidst the applause of the meeting, Mr. Beckett was thanked for his many and great services as President.—In responding, Mr. BECKETT congratulated the Institute upon having a man of Mr. Baker's eminence at its head, and expressed a hope that he would fill the post for many years; and said he trusted that their Dudley friends would soon join them. The South Midland Institute was increasing its members rapidly

South Staffordshire and East Worcestershire Institute of Mining Engineers should be allowed to meet in the Museum at a rental of 10/- per annum, one-half to go to the Mechanics' Institute. Mr. Marten exhibited and explained a model of the South Staffordshire coal field. This was of wood, with the surface so cut as to show the undulations of the country and the natural drainage. It was divided into sections, which had on the sides illustrations of the mines beneath the surface. Mr. Marten claimed for his model great teaching power, and believed that if a large one was made the natural valley drainage might be so clearly seen that pumping might be considerably reduced. The meeting praised the model, and determined to purchase a large one for the use of the members. A vote of thanks to the Chairman brought this part of the business to a close. The party then visited the Chairman's seat, the Priory, and inspected the ruins, after which the Wren's Nest Hill was explored. The geologists in the party searched it thoroughly; after which Mr. Madeley read a paper describing the hill and its relative position, arguing that the limestone being in an almost vertical position was due to the fact that a mighty stream of lava had heaved the rocks up, and then escaped on the south side, forming Rowley Hills. A vote of thanks was given to Mr. Madeley, and the party proceeded to the Dudley Arms Hotel. Mr. Spence, of Pensnett, exhibited some fine fossils.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

June 16.—There is no alteration whatever to be noticed with regard to the business doing at the iron works in Derbyshire. The trade generally may be said to be moderately good, whilst the output of Pig-Iron is still very large. The tonnage of coal going from the district to London and the South is of full average proportions for the season. To the West of England the Midland Railway by opening a dépôt at Bath has afforded the coalowners an opportunity of sending into that locality, although there are a few pits in the immediate neighbourhood of the fashionable city. In Steam Coal there is now rather more doing, not only by railway but also to some of the Yorkshire ports, for exportation to the Continent. The great interest taken by the Staveley Company in all that relates to the welfare of their workpeople has just been manifested in an act of unostentatious generosity, which cannot but be warmly appreciated by the parties interested. It having been made known to Mr. Chas. Markham, the managing director—to whom the workmen are under so many obligations for the solicitude he had always shown in the promotion of all objects calculated to benefit them and their families—that the place where the services of the Primitive Methodist body were conducted was inadequate for the purpose, the directors, through him, not only granted a site for a chapel, but also gave 40/- towards the erection of the building.

Several of the heavy branches of the Sheffield Trades are now very active. Armour and ship-plates, locomotive machinery, rails, tyres, axles, wheels, &c., are in brisk demand. Makers of Bessemer steel were never busier, and orders are now in advance of the means of supply. In rails in particular there is a very extensive trade being done, and it is said that makers are now completing an order to the extent of 12,000 tons for Russia. The iron works in the neighbourhood of Rotherham are kept well going, and the men are fully employed, and the same may be said with regard to Elsecar, where work, as a rule, has been more regular for some years past than at almost any other place in the county, the Messrs. Dawes enjoying a high reputation for rails, as well as for other qualities of manufactured iron, at the same time being amongst the largest private firms of producers of pig-iron in the kingdom. The Coal Trade is still quiet, so far as regard's household qualities, but of the collieries doing little more than three days a week, whilst a good deal of the "softs" has to be sent on to the pit hill. In steam coal, however, business is tolerably active, a considerable tonnage being forwarded to Hull and Grimsby. The South Yorkshire Steam Colliowners' Association have commenced operations at Hull, having taken office and appointed as agent a gentleman recently connected with the firm of M. Jose. Albeit it has been the means of keeping the steam coal from being reduced some 60, or 65, per cent., at the same time letting the foreign purchaser have it at a low a price as hitherto. The merchants or purchasers from colliery owners for re-sale are now likely to be affected by the operations of the association, which holds out advantages to direct dealers which they have not before enjoyed. In order to fuel a very fair business is being done with Lancashire, and a good deal of hard coal and coke is being sent into Lincolnshire for the use of the furnaces there.

Lady Geraldine Clifton (widow of Sir R. J. Clifton, formerly M.P. for Nottingham) opened the extensive and valuable colliery on the Wilford estate, near Nottingham, on Thursday. A procession, consisting of the Mayor, magistrates, and corporation of the town, accompanied by Old Fellows, Royal Foresters, &c., received Lady Clifton at the south side of the new bridge, and her ladyship drove over to the north side of the bridge and declared it to be open. The procession being re-formed, followed the carriage of Lady Clifton to the new colliery (about 200 yards distant), and opened it. The valuable seams of coal are to be worked by Mr. Saul Isaac, the Lord of the Manor (Mr. H. R. Clifton) to receive a royalty. The new bridge, which takes the place of a ferry boat, used for the conveyance of passengers across the Trent, will be a great便利 to the public, and the successful working of the colliery will be of immense advantage to Nottingham, the colliery being only a mile distant from the town.

An accident occurred on Wednesday at the Linnyshaw coal pit, Higher Worlsey, belonging to the Bridgewater Trustees. Matthew Morris, of Walkden, and John Martin-croft, of Swinton, were driving a level. They had drilled a hole to the depth of about 12 inches, and filled it with broken lime and water; and they were about to "stein" it when the lime exploded, and both men were badly burnt about the face. It is feared that they will lose their sight.

THE AMALGAMATED ASSOCIATION OF MINERS.—On Tuesday and Wednesday the executive committee of the Amalgamated Association of Miners held a Conference in Bolton, to consider various questions. Mr. Thomas Halliday, President of the Association, was in the chair. The principal subject discussed was the Mines Regulation Bill, and the Executive expressed their regret that the Bill is in such a state of uncertainty, and deplored the President to wait upon the Home Secretary and to ascertain from him whether it is his intention to proceed with the Bill this year, and if so to request him to proceed with it at as early a date as possible. The Executive also decided to keep up the agitation in favour of amending the Bill, so as to meet the requirements of the miners more fully.

REPORT FROM MONMOUTH AND SOUTH WALES.

June 16.—Although no special feature of interest has arisen in connection with the Iron Trade since last report, still it is pleasing to be able to record a continued healthy state of things. This week the usual activity is again evinced in all the principal works. As previously stated, there are plenty of orders on hand, and the establishments require to be fully and busily employed, both now and for some weeks hence. It will, therefore, be useless to look for the transaction of much fresh business just now, as instances are not wanting to show the disinclination on the part of the manufacturers to accept new contracts, and buyers complain of the difficulty they encounter in endeavouring to place a few more orders for summer delivery. Probably such will be the case for the next month or two, and in the meantime makers will prepare themselves for the accession of business which is likely to follow, by clearing off their hands, if not all, the most urgent of the spring engagements. They will then, there is little doubt, enter upon a still more profitable trade in the manufacture of railway materials. It is pretty certain that heavy orders are forthcoming, and with the fact that quotations have at present a very strong tendency upwards, there is no doubt but an appreciative higher list of prices will shortly be established. The difference between the rates now ruling and those obtained in the early part of the spring, showing something like 10s. and 15s. per ton in favour of makers, augurs well for the future. The prospects in regard to the rail trade are, therefore, decidedly encouraging. The demand from the Muscovite empire, the United States markets, together with a number of continental houses, is actively sustained, extensive clearances being each week effected to those parts, and among the last-named purchasers Germany may be instanced as one of the principal, large quantities of railway iron having been enquired for latterly. In reference to the home trade, there is hardly anything fresh to be noticed. With the progress, however, which is made in foreign transactions, this branch of the trade is gradually influenced and improved, and eventually, no doubt, a greater degree of activity will be shown in all its departments. For pig-iron and bars an improved demand is reported, and prices continue to stiffen, more especially for pigs. In the Tin-Plate Trade business is a little more active, and makers are endeavouring all they can to establish higher prices for plates, as it is clear that until they are able to do so they cannot derive much benefit from their productions, owing to the very high price of tin.

In the Steam Coal Trade business shows a little more regularity than was the case last week, although there are still many complaints of the detention of wagons at the ports owing to the scarcity of ships. In the demand there is scarcely any change to notice, the enquiry being, upon the whole, equal to the average. The belief is now general that it would have been better on all sides if the advance in wages which was lately granted to the men had been delayed for a short time; but as it is now too late to discuss the question, colliery proprietors show as it is a determination to uphold prices as far as possible, which is the next best thing in their power. In the House Coal Trade the same quiet state of things as was last reported continues to exist.

The Ebbw Vale Steel, Iron, and Coal Company (Limited) have determined on recommending the payment of a dividend of 2s. per share, which will make, with the interim dividend paid in December last, 30s. for the year, being equal to a little more than 5 per cent. per annum.

Concurrent with the establishment of a new company at Blaenavon, another new furnace has just been blown in at the works, which will make the ninth in blast. Five of the furnaces are producing cold-blast iron, and four hot-blast. The foundation of a tenth is being laid, and when this is constructed these works will be rendered one of the most extensive in the district.

A work which will conduce considerably to the benefit of the very proprietors of the Rhondda Valley is being proceeded with by the Taff Vale Railway Company. A double line of rails is being laid along the route from Ystrad to Tredegar, under the superintendence of Mr. G. Fisher and Mr. Blinns, the contractors. When the double line is completed the traffic will be greatly facilitated, as hitherto, with the single line, the frequent detention of mineral trains to allow the passenger trains to proceed has caused much inconvenience and irregularity in the conveyance of coals from the pits to the port. The present dry season is wisely taken advantage of in the widening of the bridges across the stream.

The trustees of the Swansea Harbour seem to be pretty sanguine in regard to the trade of that district. At their monthly meeting, held a few days ago, the Chairman, in moving the adoption of the minutes of the finance committee meeting, observed that, although trade had been very much depressed, there had been an increase in the revenue of the harbour compared with the corresponding period of last year. For the past eleven months there had been an increase of 559,65. 10d. on general harbour estate, and the loss on the South Dock estate was 582,145. 6d. less, thus placing them in a better position, to the extent of 947, than they were for the corresponding eleven months of last year. This certainly shows an improved state of things.

On the whole, the trade of the South Wales ports during the month of May last will bear favourable comparison with that of the corresponding month in the preceding year. The exports of coal for the month were as follows:—Cardiff, 180,613 tons, as against 181,931 tons in May, 1869; Newport, 31,384 tons, against 22,181 tons; Swansea, 39,729 tons, against 50,156 tons; and Llanelli, 12,422 tons, against 16,782 tons. The shipments coastwise for the same period were—Cardiff, 75,147 tons, as compared with 93,179 tons in the corresponding month of last year; Newport, 71,213 tons, compared with 61,731 tons; Swansea, 17,855 tons, compared with 21,427 tons; and Llanelli, 13,845 tons, compared with 18,322 tons. Cardiff also exported 32,036 tons of iron; and 4505 tons of patent fuel; Newport, 23,294 tons of iron, and Swansea 10,683 tons patent fuel.

The arrivals at Swansea include—the Dart, from Antwerp, with 130 tons of fire-clay, for Richardson and Walters; the Lizzie, from Bilbao, with 430 tons of iron ore, for James Strick; the Kilvey, from Bilbao, with 438 tons of iron ore, for H. Bath and Son; the Orvado, from Bilbao, with 290 tons of iron ore, for James Strick; the Adelphi, from Carloforte, with 440 tons of zinc ore, for H. Bath and Son; the Hannah, from Bilbao, with 275 tons of iron ore, for Cory Bros.; the Hydrantha, from Carloforte, with 250 tons of zinc ore, for H. Bath and Son; the Titania, from Huelva, with 380 tons of pyrites, to order; the Zelina, from Carrizal, with 645 tons of copper regulus, for H. Bath and Son; the Antonio Vincent, from Hondeklip, with 675 tons of copper ore, for Richardson and Co.; the Alerte, from Bilbao, with 80 tons of mineral ore, for H. Bath and Son; the Sampson, from Lisbon, with 188 tons of phosphate of lime, for Vivian and Sons; the Memomare, from Requijada, with 172 tons of zinc ore, to order; the Norma, from Bilbao, with 150 tons of iron ore, for T. Wood and Co.

REPORT FROM THE NORTH OF ENGLAND.

Middlesborough, June 16.—The Pig-Iron Trade continues to improve from week to week. Demand remains strong, and, consequently, prices stiffen. The attendance on Middlesborough 'Change on Tuesday was large, but we are not aware that much business was transacted. Recent quotations for pigs were firmly adhered to, and there is every probability that the present rates will, before many weeks are past, be increased. No. 1 is 56s.; No. 3, 53s. cash, f.o.b. at makers' works. For immediate delivery pig-iron is difficult to be had, but during the last three or four weeks some large sales are reported for next year's delivery. As we showed in our last report, the district stocks are very low, and complaint is heard from various quarters of the delay in loading vessels, and also in inland deliveries. Messrs. B. Samuelson and Co., Newport, started their two new furnaces a few days ago. These two are in addition to the five they already had blowing, and the make of the Cleveland district will be still further increased by Messrs. Lloyd and Co., who intend putting their new furnaces in blast in the course of a few days. The number of furnaces now in full blast in Cleveland is 106. The stock in the Middlesborough warrant store continues to reduce, the total contents now being 17,259 tons. Quotations for mixed numbers, 53s. 6d. to 54s.

Enquiry for rails is still animated, and some heavy contracts for next year's delivery have lately been made. From American and Russian buyers there is still brisk demand, as well also from Hungary. The rail-mills are all in full work, and there is no doubt but that the mills will have plenty of work for many months to come. For plates there is a steady demand. Shipbuilding is unabated. The yards throughout the North appear to have sufficient orders to keep them fully occupied. Yesterday the Swiftsure, an armour-clad war frigate, built by the Palmer Shipbuilding and Iron Company (Limited) for the Government, was launched. She is a magnificent vessel, and fitted out with all the latest improvements. The builders were complimented by the Admiralty Inspector, Mr. Luke, as having done what he had not known to be done during his 16 years' inspectorship—they had launched the Swiftsure three months before the time specified in the contract. Engineering establishments are well off, generally speaking, for orders. Messrs. Head, Wrightson, and Co., of Stockton, have lately received instructions to build a large bridge for a foreign railway, and other important orders in this line of business have within a short time past been received by Northern houses.

The Coal and Coke Trades are brisk, particularly the latter. The consumption of coke is now very great, and continues to increase. The new furnaces that are being blown in the Cleveland district all extend the consumption, and makers of first-class coke are much pressed for deliveries. For coal—steam and also household—there is active enquiry, and prices may be said to be improving.

Despite the threats and efforts of Russia and the United States to reduce their consumption of English iron, the Cleveland district is still enjoying a large amount of prosperity. Cleveland has now 111 blast-furnaces, and at the close of May the unprecedented proportion of 104 were in blast. Since the commencement of the current month the number of furnaces has been further increased to 113, and the total number of those in blast to 106, Messrs. B. Samuelson and Co., of Middlesborough, having blown in two new furnaces. Several additional furnaces are also being built; thus Bolckow, Vaughan, and Co. (Limited), Messrs. Cochrane and Co., Messrs. Gilkes, Wilson, Pease, and Co., Messrs. Lloyd and Co., the Consett Iron Company (Limited), and the Wear-Dale Iron and Coal Company are erecting two furnaces each, or twelve in all. Messrs. Swan, Coats, and Co., and the Norton Iron Company (Limited), are building one new furnace each; it should also have been noted that Bolckow, Vaughan, and Co. (Limited) are building a new furnace at Whitton Park. It would seem, then, that before many months have elapsed Cleveland will have no fewer than 128 furnaces—a total which will show an amazing progress upon the corresponding figures to be found in the earlier annals of the group. There is no cause, however, for astonishment as to the progress which the details we have summarised indicate, when we reflect that in May the makers' and Middlesborough warrant stores experienced a further decrease of 538 tons, although the production of pig effected in the district in May was computed at 141,829 tons, as compared with 122,794 tons in May, 1869. Time was when it was thought that Cleveland had achieved a great feat when it had attained a production of 1,000,000 tons per annum; but the production of Cleveland pig this year promises to range between 1,600,000 and 1,700,000 tons, and yet the supply cannot keep pace with the present demand.

CLEVELAND PIG-IRON TRADE.—Mr. C. E. Muller (Middlesborough) writes—During the month we have had a very animated market for Cleveland iron. For immediate delivery very little iron could be bought at all, but for delivery over next year a most extensive business has transpired, at gradually advanced prices, till at the market on Tuesday last sellers held for No. 1, 56s. 6d.; No. 3, 53s.; No. 4, 52s.; other qualities in proportion. The buying for next year has been chiefly for consumption in this district, partly, no doubt, to cover large contracts for rails. I estimate the quantity of pigs so sold at little short of 200,000 tons. There are now 106 furnaces in blast, against 102 reported at this time last month. Increase accounted for as follows:—Norton Iron Company, 1; Norwegian Titania Iron Company, 1; B. Samuelson and Co., 2 new furnaces. The following are the usual official figures for last month, compared with corresponding months last year:

Production. Ship, coastwise. Ship, foreign. War, stores. May 31, 1870. 141,829 21,223 29,662 18,534

..... 1869. 122,794 12,592 15,491 56,702

Increase 19,125. Increase 8,631. Increase 14,171. Decrease 38,168

Makers' stocks now stand at 65,014 tons, being 2,253 tons decrease during May.

Stocks at the market on May 31, 86,548 tons—barely equal to three weeks' supply at present rate of demand.

This is a most insufficient working stock, and shippers are grievously inconvenienced through delay in loading vessels.

It should be borne in mind also that 20 per cent. of the above stock is held at works situated inland, and, therefore, not available for shipping purposes.

The foreign shipments are again remarkably heavy—nearly double those of last year.

Holland and Belgium head the list with 10,550 tons; France, 9400; and Germany, 6620 tons. [Note.—Under the item of "foreign shipments," my figures differ widely from those of the Ironmaster's Association, being 29,462 tons, while they give only 17,823 tons. My returns are made up from the very best authority, and in further detail are as follows:—From Middlesborough, 26,556 tons; Newcastle, 2233 tons; North Shields, 10 tons; Sunderland, 100 tons; and East and West Hartlepool, 733 tons—29,662 tons.] The manufactured iron trade is decidedly improved, and better prices obtainable. Common bars, 7s. to 7s. 6d.; refined, 7s. 15s. to 8s.; ship plates, 9s.; angle iron, 7s. 10s. to 7s. 12s. 6d. per ton. In Staffordshire, Cumberland, and Wales there is likewise an improved demand for all classes of finished iron.

The following are some particulars respecting the recent visit of

the Cleveland Iron Trade Formen's Association to Messrs. Bolckow, Vaughan, and Co.'s iron mine at Eston, reference to which was made in last week's Journal:—

The party numbered 57 gentlemen, and Mr. Thomas Lee, manager of the mine, officiated as clercs. Before entering the mine they examined the engines, situated at the entrance: the largest, built by Messrs. Bolckow, Vaughan, and Co., contains two 33-in. cylinders, and is of great power. The drift into which the visitors were about to enter discharges about 2,000 tons of stone per day, and is besides the only outlet for the water in the mine. Between 300 and 400 gallons pass through it per minute. Entering the drift at 300 yards above the sea level, Mr. Lee and his party traversed 1100 yards into the earth on a dead level of railway. This cutting throughout its entire length passes through shale. It is of comfortable height and width, and the party suffered no inconvenience beyond the occasional dripping of water from the top, and the mudiness of the footway. The rushing of water towards the mouth of the drift, perhaps, the only object of particular interest noticed in this preparation stage. In addition to the oil lamps carried by Mr. Lee and the more experienced visitors, here and there a solitary miner stood, lamp in hand, to relieve the melancholy darkness of the progress. At the end of the level, which, by the way, was due south, and continuing in a right line from the points where the ironstone begins, is a descent of nearly 700 yards, having a decline of 3*st*.

The party were then shown the inspection of the mine at its highest point, and the courteous attention of Mr. Lee and Mr. Williams to the numberless questions of their companions, particularly when the roughness of the way is taken into account, was very largely a recognition. Here it was explained that it is the custom to work one end of the drift, ironstone being taken out in two drifts, the other two drifts as a prop to be worked out in coming back. After passing a couple of miners standing at the entrance of two dark opposing passages, one extending 3*mi* to the westward, and the other 1*mi* to the eastward, a curve to the right introduced the party to a stable for the accommodation of 12 horses. Although they never sleep daylight during the average fire or six years of their stay below the earth, these animals look remarkably sleek and fresh; and do credit to their groves. There are altogether about 150 horses in the mine, and, excepting when they meet with an accident, healthy animals stay fully the time already indicated in thorough health and working condition. The party had now arrived exactly at sea level, and near the mouth of the shaft, which is, however, not yet seen. Here is a huge engine, also built by Messrs. Bolckow, Vaughan, and Co., which claims the record of practical men. It contains two 33-in. cylinders, and is intended to work the drift proceeding eastwards towards Gubisburgh, and is capable of maintaining its position as the effective agent to this purpose when the cuttings in that direction very far exceed their present limit. Going forward into the boiler-house, the comparatively comfortable temperature of the main drift is exchanged for 120° Fahr., and the more corpulent of the visitors scarcely pause to learn from their polite guide, Mr. Lee, that the boilers, over which they have clambered, are of the tubular kind, 30 ft. long and 12 ft. in diameter, and that the engine, which they supply with vital force, ordinarily works five force pumps, which draw the whole of the drifts in this direction. Having traversed to the extreme southern point of the mine, rising all the way one in twelve to the end, a distance of about 400 yards, the foremen and their friends returned towards the mouth of the shaft, passing in their way a huge fire, maintained for the purpose of ventilating the mine, at an expenditure of nearly 6 tons of fuel per day, and over which the advent of the cage is not an unwelcome, especially after the assurance that Calow's safety apparatus is included amongst its excellencies. The perpendicular ascent is effected in one minute, and the more nervous congratulate one another upon their safe arrival once more into the daylight. Some climb to the top of the engine-house, and watch the movement of the huge fly-wheel, 25 ft. in diameter. The descent on the north side is rough and steep through a beautiful plantation of fir, and near the bottom is the object of present curiosity—one of Gilbalt's ventilating fans, the only one of its size in England, 37 ft. in height and 12 ft. in breadth, and worked by a powerful steam engine, constructed by Messrs. Black and Hawthorne, of Gateshead. The 1*st* stone Mine gives employment to not fewer than 1100 men, being the stay of a village of 3000 inhabitants. The vast extent of the mine may be conceived when it is stated that only three of its numberless workings had been seen during this inspection. Recent experiments attest the capability of the iron, which it produces for the highest purposes of the manufacture; and its existence is, perhaps, the principal occasion of the abundant increase of wealth in that neighbouring district "whose stones are iron."

BROMFIELD COLLIERY (Flintshire).—A new water-wheel, with a pump-lift, has just been added to this colliery, to give a plentiful supply of clear water to the boilers, and other appliances to increase the power of getting of coal. The above, and the finding of a small pond of water in the workings, has suspended the lifting of coal for short time. This will, however, be resumed upon completion of all the works, which will largely increase the pumping power in these pits, and likewise the get.

ADMIRALTY COAL.—A Correspondent, writing to the *Times*, says—"By way of supplement to your excellent leader of to-day on the subject of the recent innovation in the mode of purchasing Admiralty stores, permit me to direct public attention to the article coal, of which a very large quantity is annually consumed in Her Majesty's ships. The quality of the coal raised in every important colliery in the kingdom, with respect to heat-giving power, mode of burning, and capability of resisting what is termed weathering action, has been thoroughly investigated, and is perfectly well known. Accordingly

THE MINING JOURNAL.

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PUMPING ENGINES of various sizes,—viz., 80 in., 70 in., 60 in., 50 in., 40 in., 30 in.
WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and CRUSHERS of various sizes.
A NUMBER OF BOILERS.
PITWORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

TO BE SOLD, AT MODERATE PRICES.

For further particulars, apply to—

MESSRS. HARVEY AND CO.,
ENGINEERS AND GENERAL MERCHANTS,
HAYLE, CORNWALL,
AND HAYLE FOUNDRY WHARF, NINE ELMS, LONDON,
MANUFACTURERS OF
PUMPING and other LAND ENGINES and MARINE STEAM ENGINES of the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL.
SHIPBUILDERS IN WOOD AND IRON.

SOUTH EXMOUTH MINE, HENNOCK, DEVON.

FOR SALE, BY PRIVATE CONTRACT, the following, viz.:—
40 in. cylinder PUMPING ENGINE.
25 in. cylinder WHIM ENGINE, with CRUSHER attached.
60 fms. 11 and 12 in. PUMPS in shaft.
30 fms. 11 and 12 in. PUMPS at surface.

Timber, and various useful mining materials.

Apply to Capt. JOHN CORNISH, Frank Mills Mine, Christow; or to Mr. J. O. HARRIS, Public Accountant, 2, Gandy-street, Exeter.

FOR SALE, BY PRIVATE CONTRACT, at PAR CONSOLS MINE, near Par Station, CORNWALL,

EIGHT STEAM ENGINES,

Including ONE 80 in. (with BOILERS), for pumping, stamping, and drawing purposes; THREE HUNDRED PUMPS, from 6 in. to 20 in.; H and door-pieces; hammered iron rod plates; rail, scrap, and cast iron; with a large quantity of useful MINING MATERIALS.

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WILLIAMS'S PERRAN FOUNDRY COMPANY, CORNWALL,
MANUFACTURERS of PUMPING and OTHER ENGINES and GENERAL MACHINERY, have FOR SALE:—

ONE 36 in. PUMPING ENGINE, secondhand.

ONE 30 in. PUMPING ENGINE, secondhand.

ONE 8 in. HORIZONTAL HIGH-PRESSURE ENGINE, new.

Several Cornish BOILERS.

Also a large assortment of NEW and SECONDHAND PITWORK, at moderate prices.

LONDON OFFICES, 1 and 2, GREAT WINCHESTER STREET BUILDINGS, E.C.

FOR SALE, cheap, several FIRST-CLASS NEW PORTABLE STEAM ENGINES, with all recent improvements, and guaranteed; 9-horse power, 12-horse power, and 25-horse power, ready for delivery.

Superior PIT WINDING GEAR supplied at a short notice, suitable for Portable Engines.

FOR SALE, an excellent SECONDHAND PORTABLE STEAM ENGINE, with a NEW MORTAR MILL.

Apply to—

BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE,—A 22 in. cylinder ROTARY ENGINE, 4 ft. stroke, horizontal, condensing, and double beat valves; heavy fly wheel, with hammered iron fly-shaft; plummer blocks and brasses; together with a Cornish BOILER, about 10 tons, and nearly new, and boiler furniture.

The same will be sold either as a whole or separately. Also, 11 in. 9 ft. pumps; 15 in. and 7 in. plunbers.

Apply to W.M. OATEY and Co., Iron Works, Wadebridge.

We have very EXTENSIVE and VALUABLE TIN SETT TO DISPOSE OF, immediately adjoining a Tin Mine paying large dividends.

FOR SALE,—THE UNDERMENTIONED ENGINES:—

ONE 50 in. cylinder PUMPING ENGINE, with ONE BOILER.

ONE 30 in. cylinder ROTARY STEAM ENGINE, 7 ft. stroke, with or without BOILER, wrought iron fly-wheel shaft, and 10 ton fly-wheel; 12 heads of stamps complete.

ONE 30 in. cylinder PUMPING ENGINE, 9 ft. and 8 ft. stroke, with or without BOILER.

ONE 30 in. cylinder ROTARY STEAM ENGINE, with ONE 6 ton BOILER.

THREE Cornish BOILERS, from 10 to 12 tons each, in excellent condition.

Also, several Cornish CRUSHERS, of various sizes.

Also, 60 feet WATER WHEEL, with hammered iron round shaft, cast-iron sockets, rings, &c.

For further information, apply to—

W. MATHEWS, ENGINEER, TAVISTOCK.

Tavistock, June 9th, 1870.

MARTIN'S PATENT PISTON,
FOR STEAM AND OTHER ENGINES.

Effecting a SAVING OF FIFTEEN PER CENT. IN FUEL, with TEN PER CENT. ADDITIONAL POWER.

Address,—

MESSRS. WILLIAMS AND BOLTON,
ST. HELEN'S FOUNDRY,
(Patent Piston) SWANSEA.

WARTON NATIVE OXIDE OF IRON

IS SUPERIOR TO ANY OTHER PAINT IN

BODY AND BRILLIANT COLOUR,

AND, UNLIKE LEAD PIGMENTS,

IS INNOCUOUS TO THE WORKMEN USING IT.

Prices may be obtained on application to the agents,—

H. J. WALDUCK AND CO.,
No. 1, MARKET STREET, MANCHESTER.

JOHN HORSLEY,
IRON AND METAL AGENT,

ST. ANN'S SQUARE, MANCHESTER.

PERMANENT, CONTRACTORS, and COLLIERY RAILS, in STEEL or IRON

Wrought-Iron or Steel Weldless Locomotive Carriage and Wagon Tyres.

Iron and Steel Straight and Cranked Axles, Wheels and Axles, Railways Chairs,

Fish Plates, Bolts and Nuts, Spikes, Cranes, Jacks, Rivets, Hurdles, and Chains.

Black or Galvanised Telegraph Wires, Fencing Wire.

BLACK, OILED, and GALVANISED CORRUGATED SHEETS.

Rolled Iron Joints, Wrought-Iron Girders, Roofs, Bridges, Tanks, Boilers, &c.

Boat Girder, Tank Bridge and Boiler Plates.

Angle, Tee, and Girder Iron.—Nail Rods, Tie Plates, Hops, Sheets, Lead, Copper, Tin, Zinc, and Spelter.

Horn and Cold Blast Pig Iron, &c., &c.

MACHINERY FOR MINES AND SLATE QUARRIES.

SAWING, PLANING, DRESSING, and ROCK-BORING MACHINES

FOR SLATE.

WATER BALANCES, WATER WHEELS, WINDING AND PUMPING MACHINERY; and PLANT of every description for MINES or QUARRIES.

STEAM ENGINES—STATIONARY, MARINE, or LOCOMOTIVE.

BOILERS AND GIRDER WORK.

SHAFTING, PULLEYS, and GENERAL MILLWORK.

MACHINERY AND GENERAL CASTINGS.

SPUR and BEVEL WHEELS of any diameter or pitch moulded by machinery.

DE WINTON AND CO.,

UNION IRON WORKS, CAERNARVON.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the CLIFFORD AMALGAMATED MINING COMPANY.—Notice is hereby given, that by an Order made in the above Matter, dated the 11th day of June last, CHARLES PARRY, of Scorrer, in the county of Cornwall, Accountant, was ABSOLUTELY APPOINTED the OFFICIAL LIQUIDATOR of the above-named company. JOSEPH ROBERTS, Solicitor for the Petitioner. Dated the 12th day of June, 1870.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the CLIFFORD AMALGAMATED MINING COMPANY.—Notice is hereby given, that ALL CREDITORS of the above-named company are required, on or before Wednesday, the 29th day of June instant, to SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS AND PARTICULARS OF THEIR SEVERAL CLAIMS, to Mr. CHARLES PARRY, the Liquidator of the said company, at his office, Scorrer, Cornwall.

CHARLES PARRY, Official Liquidator.

Dated this 15th day of June, 1870.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the ROSEWARNE AND HERLIAND MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the above-named company by the Court was on the 11th day of June last, presented to the Vice-Warden of the Stannaries, by George Millett, Millott, of Hayle, in the county of Cornwall, one of the partners of and in the firm lately carrying on business at Copperhill, near Hayle, under the style or firm of " Sandy's, Vivian, and Co.," and a trustee for winding-up the affairs of such firm, the said partners therein being contributors of the said company, and that the said Petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, on Wednesday, the 27th day of July next, at Twelve o'clock noon.

Any contributor or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, or his solicitor, or agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., Secretary to the Vice-Warden, Truro.

Every such contributor or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 23rd day of July next, and notice thereof must, at the same time, be given to the petitioner, or his solicitor, or agents.

ROBERT M. PAUL, Truro, Cornwall
(Solicitor to the Petitioner); and
R. W. CHILDS AND BATTEN, 25, Coleman-street, London
(Agents of the said Solicitor).

Dated Truro, the 13th day of June, 1870.

In the Court of the Vice-Warden of the Stannaries.

Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the CLIFFORD AMALGAMATED MINING COMPANY.—TO BE SOLD, BY PUBLIC AUCTION, at the United Mines Account House, upon the Clifford Amalgamated Mines, in the parish of Gwennap, in the county of Cornwall, by direction of the Official Liquidator of the said company, under the sanction of the said Court. On Wednesday, the 29th day of June instant, at Twelve o'clock noon, in Old Lot, as a going concern, subject to such conditions as shall be then and there produced, all the INTEREST of the COMPANY in the several LEASES or SETTS, under which the mining operations of the said company have been carried on, together with the WHOLE of the TIN and other ORES, LEAVINGS, and HALVANS, in and upon the Mines on the day of sale; and also the unclaimed valuable

PUMPING AND WINDING ENGINES, MACHINERY, PITWORK, MATERIALS, and OTHER EFFECTS, viz.:—

PUMPING ENGINES.

Cardozo's ENGINE, 90 in. cylinder, with four 10-ton boilers.

Hocking's, 85 in. cylinder, with five 8-ton boilers.

Garland's, 85 in. cylinder, with five 10-ton boilers.

Taylor's, 85 in. cylinder, with five 10-ton boilers.

Lam's, 85 in. cylinder, with seven 10-ton boilers.

Cawdor, 85 in. cylinder, with four 10-ton boilers.

Clifford, 76 in. cylinder, with five 8-ton boilers.

Wheat Andrew, 70 in. cylinder, with two 10-ton boilers.

Elidon's, 30 in. cylinder, with two 9-ton boilers.

WINDING ENGINES.

Hawke's MAN ENGINE, with crusher attached, 38 in. cylinder, with two 9-ton boilers.

Clifford WHIM, 30 in. cylinder, with one 8-ton boiler.

Clifford CRUSHER, 26 in. cylinder, with one 7-ton boiler.

Garland's WHIM, with crusher, 24 in. cylinder, with one 7-ton boiler.

Taylor's WHIM, with crusher, 24 in. cylinder, with one 4-ton boiler.

Lyle's WHIM, 24 in. cylinder, with one 10-ton boiler.

Frederick's WHIM, 26 in. cylinder, with one 7-ton boiler.

Wheat Moon WHIM, 24 in. cylinder, with one 7-ton boiler.

Poldory WHIM, 24 in. cylinder, with one 4-ton boiler.

Frances' WHIM, crusher, and 32 heads of steam stamps, 26 in. cylinder, with one boiler.

Also a sawing and screwing machine, turning lathes, &c., &c.; and

About 20 tons of working and old brass.

About 4 tons of steel wire rope; and about 20 tons of capstan rope.

About 620 ft. pump—20 in., 19 in., 18 in., 17 in., 16 in., 15 in., and 14 in.

About 30 ft. and 4 ft. pumps;

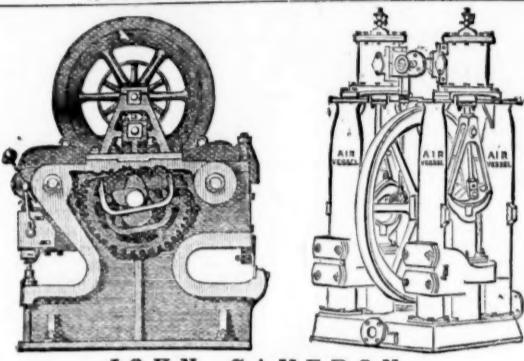
About 33 plunger poles—19 in., 17 in., 15 in., 1

RAILWAY WAGON WORKS, BARNSLEY.
MESSRS. G. W. AND T. CRAIK
ARE PREPARED TO
SUPPLY COAL AND COKE WAGONS
OF EVERY DESCRIPTION,
Either for cash, or by deferred payments through wagon-leasing companies.
WAGONS PROMPTLY REPAIRED.

THE BEVERLEY IRON AND WAGGON COMPANY,
LIMITED.
MANUFACTURERS OF RAILWAY WAGGONS, WHEELS and AXLES,
CARTS, LORRIES, WOOD WHEELS, PATENT WROUGHT IRON WHEELS
and AXLES, BARROWS, PUMPS, DOUBLE PURCHASE CRABS, &c., &c.
IRON WORKS—BEVERLEY, YORKSHIRE.
Catalogues free by post.

ENGINE COVERS—TARPAULINS—AIR SHAFTING
FOR MINES.

THE BEST DESCRIPTIONS, and as SUPPLIED to the
LARGEST FIRMS, can be obtained at—
BENJAMIN EDDINGTON'S,
2, DUKE STREET, LONDON BRIDGE, S.E.

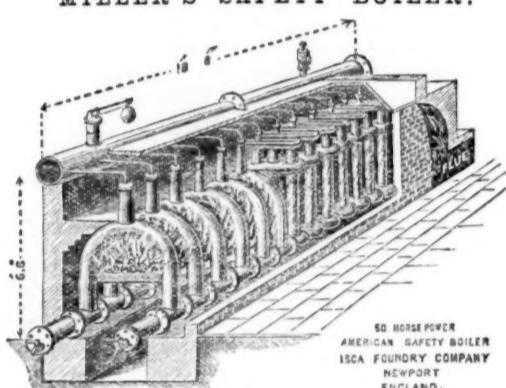


JOHN CAMERON,
MAKER OF

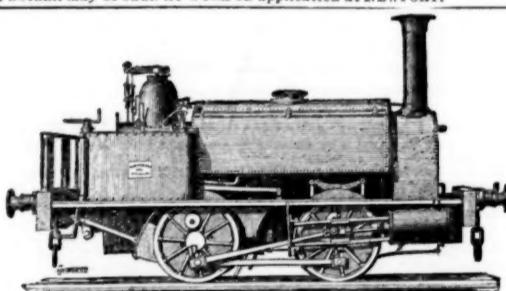
STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS,
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING
MACHINES, PATENTEE OF THE DOUBLE CAM LEVER
PUNCHING MACHINE, BAR SHEARS, AND RAIL
PUNCHING MACHINES,

EGERTON STREET IRON WORKS,
HULME, MANCHESTER.

ISCA FOUNDRY COMPANY,
NEWPORT, MONMOUTHSHIRE; and
25, LAWRENCE POUNTNEY LANE, LONDON, E.C.
MANUFACTURERS OF
MILLER'S SAFETY BOILER.



This boiler is safe from destructive explosions.
It evaporates 11 lbs. of water per lb. of coal.
It consumes its own smoke.
At 75 lbs. pressure the pyrometer applied in the flue only shows 360° of heat in
the waste gases.
It occupies only one-half the space of a Cornish boiler.
It can be erected at one-fourth the cost in labour and masonry.
Duplicate parts are always in stock for repairs.
A BOILER may be SEEN AT WORK on application at NEWPORT.



TANK LOCOMOTIVES,
FOR SALE OR HIRE.
HENRY HUGHES AND CO.
LOUGHBOROUGH.

RAILWAY CARRIAGE COMPANY (LIMITED).
ESTABLISHED 1847.
OLD BURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS of RAILWAY CARRIAGES AND WAGONS, and EVERY
DESCRIPTION OF IRONWORK.
Passenger carriages and wagons built, either for cash or for payment,
over a period of years.

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CHIEF OFFICES—OLD BURY WORKS, NEAR BIRMINGHAM.
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MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUCTION of RAILWAY ROLLING STOCK.
OFFICES AND WORKS,
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THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for
HIRE and SALE, by immediate or deferred payments. They have also wagons
for hire capable of carrying 6, 8, and 10 tons, part of which are constructed especially
for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.

WAGON WORKS—SMETHWICK, BIRMINGHAM.

* * * Loans received on Debenture: particulars on application.

THE IRON AND COAL TRADES' REVIEW:
ROYAL EXCHANGE, MIDDLESBROUGH.
The IRON AND COAL TRADES' REVIEW is extensively circulated amongst the
Iron Producers, Manufacturers, and Consumers, Coalowners, &c., in all the Iron
and Coal districts. It is, therefore, one of the leading organs for advertising
every description of Iron Manufacture, Machinery, New Inventions, and all
matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades
in general.

Offices of the Review:—Middlesbrough-on-Tees (Royal Exchange); London
11 and 12, Red Lion-court, Fleet-street; Newcastle-on-Tyne (60, Grey-street).

THE HOWARD SAFETY BOILER.

Made entirely of WROUGHT-IRON TUBES, and other improvements, adapting it for MARINE, STATIONARY, and PORTABLE ENGINES.

THESE BOILERS ARE NOW WORKING SUCCESSFULLY IN ALL PARTS OF THE WORLD.
One Firm in the North of England, who had a 50-horse power Boiler in 1868, has since purchased over twenty others.

Patentees and Manufacturers: J. and F. HOWARD, Britannia Iron Works, Bedford.
LONDON OFFICE: 4, CHEAPSIDE (three doors from St. Paul's).

THE SANDYCROFT FOUNDRY AND ENGINE WORKS CO., LIMITED, SANDYCROFT, NEAR CHESTER,

MANUFACTURERS OF

Steam Pumping, Winding, and every other Description of Engine,
PITWORK, BOILERS, FORGINGS,
WATER WHEELS, CRUSHING AND DRESSING MACHINERY, AND MINING TOOLS OF ALL KINDS.

Machinery in course of Construction, Second-Hand and Work always on hand.

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OSLER'S CRYSTAL GLASS CHANDELIERS, WALL LIGHTS and LUSTRES for GAS and CANDLES. CHANDELIERS IN BRONZE AND ORMULU.

MODERATOR LAMPS, AND LAMPS FOR INDIA.

TABLE GLASS of all kinds. ORNAMENTAL GLASS, English and Foreign.
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All articles marked in plain figures.

LONDON: Show Rooms, 45, Oxford-street, W.

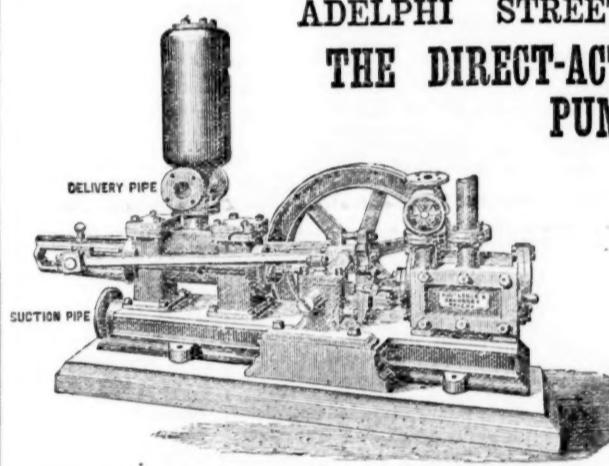
BIRMINGHAM: Manufactory and Show Rooms, Broad-street.

Established 1807.

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ENGINEERS,

ADELPHI STREET, SALFORD, MANCHESTER,
THE MAKERS OF
THE DIRECT-ACTING DOUBLE HORIZONTAL
PUMPING ENGINE.



THESE PUMPING-ENGINES are especially adapted for
FORCING WATER OUT OF MINES, being simple in con-
struction and reliable. They have now been at work many
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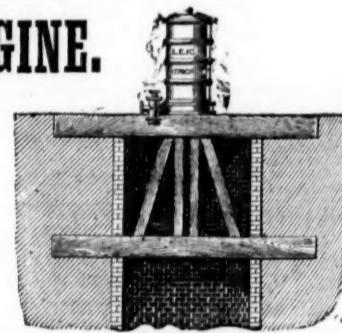
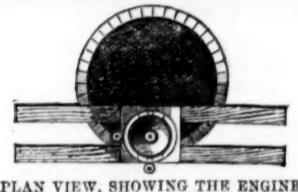
PUMPS AND WINDING ENGINES

Especially designed for colliery purposes; also, AIR-COM-
PRESSING ENGINES, as used in connection with COAL-
CUTTING MACHINES, &c.

Further information and prices forwarded on
application.

O. and T. are also MAKERS of other classes of
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DIRECT-ACTING PUMPING ENGINE.



JOSEPH D. LEIGH,
PATRICROFT, NEAR MANCHESTER,

Wishes to draw the attention of Mining Engineers, Colliery Proprietors, and others, to his

IMPROVED DIRECT-ACTING PUMPING ENGINE.
ALSO, EVERY DESCRIPTION OF
COLLIERY WINDING ENGINES.

ROBEY AND COMPANY, LIMITED,
ENGINEERS, LINCOLN.

PATENT PORTABLE

HAULING AND WINDING ENGINE,
WITH
PATENT DRUM WINDLASSES,
FOR MINING PURPOSES.



This Engine is specially commended to Mining Engineers and others, as
by its adoption—
Haulage along inclined drifts is easily and cheaply effected.
The expense of sinking new shafts is greatly reduced, neither founda-
tions nor engine-house being required.
It is available not only for winding, but for pumping, sawing, &c.—
a great desideratum at a large colliery.
It can be very quickly removed (being self-propelling), and fixed in any
desired position.

Prices and full particulars on application as above, and also references to
view the Engine in successful work near Derby, Carnarvon, Haverfordwest,
Darlington, and other places.

GWYNNE AND CO., ENGINEERS,
ESSEX STREET WORKS, STRAND, LONDON, W.C.

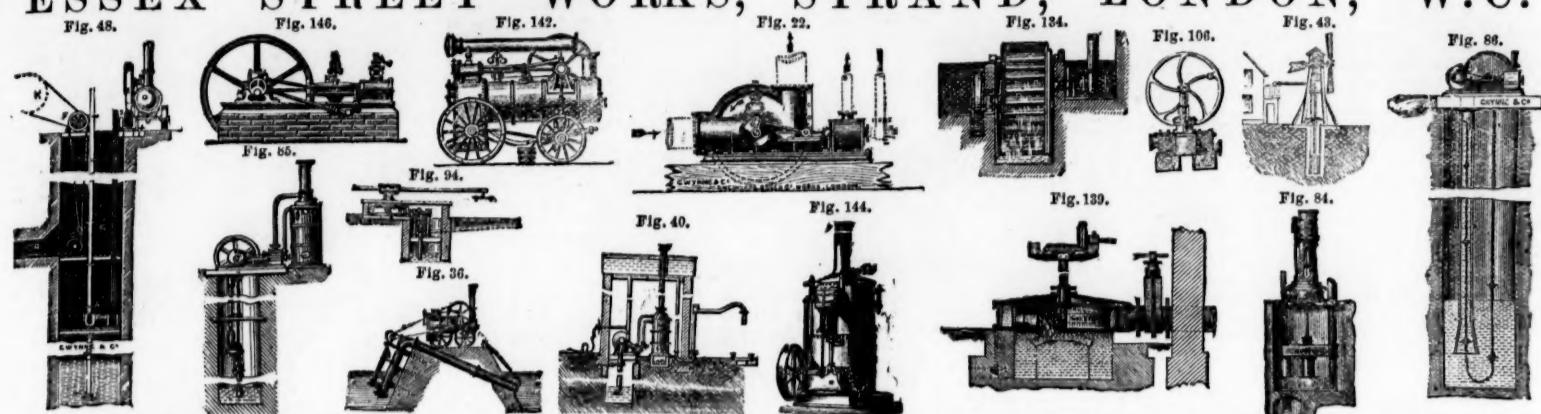


Fig. 144.—Vertical Engine, all sizes, from 2 to 20-horse power.
 Fig. 146.—Horizontal Engine, from 4 to 100-horse power.
 Fig. 142.—Portable Engine, from 2½ to 30-horse power.
 Fig. 40.—Gwynne and Co.'s Combined Stationary Pumping Engine.
 Fig. 139.—Turbine Water-wheel, from 1 to 300-horse power.

Fig. 22.—Combined Pumping Engine, all sizes, obtained Prize Medal, Paris Exhibition.
 Fig. 85.—Deep Well Pumping Engine, all sizes.
 Fig. 134.—Water-wheel Pumping Machinery.
 Fig. 36.—Gwynne and Co.'s Patent Syphon Drainage Machinery.
 Fig. 95.—Horse-power Pumping Machinery.

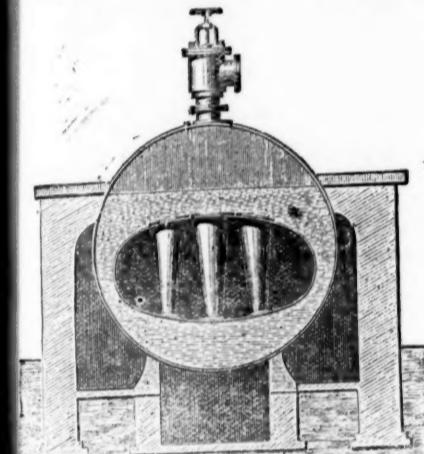
Fig. 86.—Chain Pump Pumping Engine.
 Fig. 48.—Deep Mine Centrifugal Pumping Machinery.
 Fig. 84.—Double-acting Vertical Pumping Engine.
 Fig. 106.—Gwynne and Co.'s Improved Plunger Hand Pump.
 Fig. 43.—Wind Power Pumping Machinery.

Steam Engines of all kinds and sizes, Hand and Steam Fire Engines, Water Wheels, Hydraulic Lifts, Cranes and Jacks, Steam and Water Valves, Hydraulic Presses, Sheep Washing Machinery, &c., &c.

List of Centrifugal Pumps, two stamps. Illustrated Catalogues of Pumping Machinery, six stamps. Large Illustrated Catalogue, with many Estimates, &c., twelve stamps. All post free. Gwynne and Co. have recently effected a considerable reduction in their prices, being determined to supply not only the best but the *cheapest* Pumping Machinery in the world.

G W Y N N E A N D C O.,
HYDRAULIC AND MECHANICAL ENGINEERS, ESSEX STREET WORKS, STRAND, LONDON, W.C.

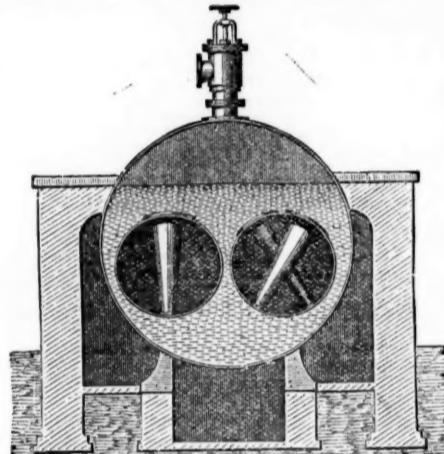
G ALLOWAY'S
PATENT CONICAL WATER TUBES FOR STEAM BOILERS.



Section of the "Galloway" Boiler, showing arrangement of back flues, the furnaces being of the same construction as in the common two-flued boiler.

Makers of Wrought-iron Parallel Tubes, 40s. p. cwt.

MANUFACTURERS OF THE WELL-KNOWN



Section of Cornish Boiler, showing application of the "Galloway" Tubes.

"G ALLOWAY BOILER,"
 AS PER SKETCH ANNEXED.

UPWARDS OF TWO THOUSAND OF WHICH ARE NOW AT WORK.

BOILERS OF ANY DIMENSIONS, UPON THIS OR ANY OTHER PLAN, CAN BE DELIVERED WITHIN A FEW DAYS FROM RECEIPT OF ORDER.

STEAM ENGINES OF EVERY DESCRIPTION.

General Millwrighting.—Hydraulic Machinery.—Polishing, Grinding, and other Machines for Plate Glass.

LEAD ROLLING MILLS AND PIPE PRESSES. CAST AND WROUGHT-IRON GIRDER BRIDGES.

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Shearing and Punching Machines Bending Rolls, and every description of Boilermakers' Tools, &c., &c.

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MAKER OF "THE REGISTERED" DOUBLE-REFINED MACHINE OIL,"

For Engines, Lathes, Planing Machines, &c.

AND THE IMPROVED BROWN CORVE OIL FOR COLLIERIES.

BRAMALL LANE, SHEFFIELD.

A SAVING OF ABOUT FIFTY PER CENT.

Is effected by the use of the **PATENT DON LUBRICATING OIL.**

In place of OLIVE and other kinds ordinarily used on STATIONARY, LOCOMOTIVE, MARINE ENGINES, and MACHINERY of all kinds, and the undersigned are so satisfied of the correctness of this statement, that they are willing, at their own risk, to forward a cask of about 30 gallons for trial to any respectable person or company, on the understanding that it may be returned in a month if it should not answer, when payment would not be required, except for the quantity used.

There are two kinds,—the medium for engines and heavy bearings, and the light for spindles and light work. This oil will lubricate as well, and lasts as long, as olive, neats'-foot, and other expensive kinds, and is superior to rape, which is fully 50 per cent. dearer.

It never "CLOGS," nor leaves any "GUMMY" deposit upon the bearings, which, therefore, never require cleaning or scraping, whereby much time, labour, and expense are saved. It is in use and approved of by the majority of the iron and coal companies in West Lancashire, where it was first introduced but a few months ago, also by several ocean steamer and ferry proprietors on the Mersey and elsewhere.

Printed particulars and testimonials sent, post free, to any address.

DUNCAN BROTHERS, 17, Unity-buildings, Lord-street, Liverpool.



By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and

I. AND T. HEPBURN AND SONS,
 FANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE PIPE MANUFACTURERS,

LONG LANE, SOUTHWARK, LONDON.

Prize Medals, 1851, 1855, 1862, for MILLBANDS, HOSE, AND LEATHER FOR MACHINERY PURPOSES,

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2500000 Nethduddo Coal and Iron		0 6 6 .. par.	26 pm.
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100 Sheepbridge Iron and Coal Co. [L.]		55 0 0 .. 16	14 dls.
100 Staveley Iron and Coal Co.		60 0 0 .. 49	41 pm.
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75 Ditto ditto		75 0 0 .. 10	10 dls.

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BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500 Alderley Edge, c, Cheshire*	10 0 0 ..	—	10 6 8 ..	0 5 0 .. Jan.	1369	—	—
6000 Roseaswell, t, c, St. Just ..	1 0 0 ..	—	0 2 0 ..	0 2 0 .. Apr.	1870	—	—
2000 Boddallack, t, c, St. Just ..	91 0 0 .. 280	—	270 290	575 5 0 .. 10 .. May	1870	64 Blaen-y-Glyn, t, Cambw.	70 0 .. —
207000 Bronfloyd, t, c, Cardigan*	3 10 0 ..	3	3 3 1/2	2 8 0 .. 0 1 6 .. Apr.	1870	5000 Blaen-y-Glyn, t, St. Agnes	1 5 0 .. —
500000 Bwld Consols, s-l, Cardigan*	4 0 0 ..	3 1/2	8 1/2 3 1/2	0 9 0 .. 0 2 0 .. May	1870	12000 Bryn Gwyn, t, Mold*	9 0 .. —
64000 Cashwell, t, Cumberland	2 10 0 ..	3	—	0 9 0 .. 0 2 6 .. Dec.	1869	7500 Brynpostig, Montgomery	1 5 0 .. —
916 Cargol, s-l, Newlyn*	15 5 7 ..	6	4 5	16 15 0 .. 0 10 0 .. Aug.	1869	6000 Brynpostig, t, Cardigan*	2 0 0 .. 1 1/2 .. 2 1/2
1280 Chanticleer, t, Flint	9 7 8 ..	—	—	0 1 0 .. 0 6 .. Nov.	1868	6000 Brynwall Consols, s-l, Cardigan	8 5 0 .. 2 1/2 ..
2450 Cook's Kitchen, c, Illogan†	19 14 9 .. 21	—	21 23	3 13 0 .. 0 7 6 .. Apr.	1870	3000 Cadgwith Fells, t, Cambw.	1 17 6 .. 1 1/2 .. 1 1/2 ..
1000 Cornwall Hematite*	10 0 0 ..	—	—	0 10 0 .. 0 10 0 .. Feb.	1870	5000 Capel Banhaglog, t, Mont.	8 0 0 .. 3 .. 3 1/2 ..
509 Creghirawse and Penkevill, t	—	—	—	2 5 0 .. 1 5 0 .. April	1863	914 Caradon Consols, c, St. Cleer	3 0 0 .. —
867 Cwm Erm, t, Cardiganshire*	7 10 0 ..	—	—	31 18 0 .. 0 5 0 .. Apr.	1870	6100 Cardigan Bay, s, Aberyst.	5 0 0 .. 10 1/2 .. 10
123 Cwmystwyth, t, Cardiganshire ..	60 0 ..	—	—	387 10 0 .. 2 0 0 .. July	1869	6000 Carr Camborne, c, Camborne	2 18 6 .. —
280 Derwent Mines, t, Durham ..	300 0 ..	—	—	177 0 .. 0 .. 2 10 0 .. July	1868	3000 Cefn Brynwyn (Llan.), t, Brynwyn	3 0 0 .. —
1024 Devon Co. Consols, c, Tavistock†	1 0 0 ..	115	100 110	1145 0 .. 0 4 0 .. May	1870	3000 Chiverton Valley, t, Perranz.	3 0 0 .. 4 .. 3 1/2 ..
656 Ding Dong, t, Galway	49 14 6 .. 18	—	17 19	6 0 0 .. 0 1 0 .. Dec.	1869	3000 Chiverton Wheal Virgin, t, Perranz.	1 5 0 .. —
1432 Dolcoath, c, t, Camborne	32 4 6 .. 135	—	130 135	242 2 6 .. 3 10 0 .. June	1870	256 Condor, t, Camborne	70 0 .. —
6144 East Cadron, t, St. Cleer*	2 10 0 ..	1/2	1 2	1 2 0 .. 0 1 2 .. Apr.	1870	983 Copper Hill, t, Redruth	12 0 0 .. —
3000 East Darren, t, Cardiganshire	32 0 ..	—	—	182 10 0 .. 2 0 0 .. Feb.	1870	1053 Crooklock Moor, t, St. Cleer	15 0 .. —
6400 East Pool, t, c, Pool, Illogan	0 9 9 ..</td						